

## OPTICAL COORDINATES OF SOUTHERN PLANETARY NEBULAE

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### RESUMEN

Un conjunto homogéneo de nuevas medidas de casi todos los (995 sobre 1007) objetos del catálogo de Strasbourg-ESO de Nebulae planetario galáctico o en el primer suplemento de este catálogo en el área cubrió por el DENIS survey ( $\delta < +2^\circ$ ) se da aquí. 24 nuevos y 27 falsas identificaciones cruzadas con fuentes en el IRAS PSC catalogan y una cierta confusión en la literatura se enumera también.

### ABSTRACT

A homogeneous set of new measurements of nearly all (995 out of 1007) objects from the *Strasbourg-ESO Catalogue of Galactic Planetary Nebulae* or in the first supplement of this catalogue in the area covered by the DENIS survey ( $\delta < +2^\circ$ ) is given here. 24 new and 27 wrong crossidentifications with sources in the IRAS PSC catalogue and some confusion in the literature is listed as well.

*Key Words:* **PLANETARY NEBULAE: GENERAL**

### 1. INTRODUCTION

In the preparation course of a of catalogues of near infrared (NIR) sources of the DENIS survey (Epchtein et al. 1994, 1997) and during the measurements of planetary nebulae (Kimeswenger et al. 1998a), we found that the optical coordinates of a significant portion of the known galactic planetary nebulae (PNe) are inaccurate. These inaccuracies impair the use of automated cross-identifications for, e.g., colour-colour diagrams (Kimeswenger 1997). Also a wealth of problems arise in electronic data bases (Kimeswenger et al. 1998b). The coordinates of the objects in the large PNe-catalogues (e.g. Perek & Kohoutek 1967 = CGPN, Acker et al. 1992a = SECGPN, Acker et al. 1996) mostly were taken from the original literature. Even the coordinates in the IAC Morphological Catalog of Northern Galactic PNe (Manchado et al. 1996) are not derived from the images, but copied from the SECGPN only. Thus this catalogue can not be seen as northern counterpart to this compilation here. More accurate optical coordinates of a small set of nebulae were re-determined later (Milne 1973, 1976; Blackwell & Purton 1981). The accuracy of the recently detected objects is in most cases rather good. However older coordinates are often given  $\pm 0.1$  or worse. Also, a considerable number of central stars (CSPN) of

extended nebulae were identified in the meanwhile. Those nebula got a better defined "center". A low accuracy is insufficient for satellite observations or those of the new generation very large telescopes. Even the identification on the crowded  $12' \times 12'$  fields coming from the DENIS survey was often quite difficult (Epchtein et al. 1994). We measured all coordinates by means of the Digital Sky Survey and some supplementary material, like CCD digitisation from the Schmidt plate copies for faint nebulae or I band images obtained by the DENIS survey. Although there exist for a small number of nebulae more accurate radio coordinates, we measured those nebulae too and thus got a highly homogeneous data set of optical coordinates.

### 2. NOMENCLATURE

The name (identifier) of the nebula is usually formed using the galactic coordinates (truncated at  $1/10^{th}$  of a degree)

PN *GLLL.l $\pm$ BB.b*

as it was proposed for PNe by Acker et al. (1992a). A change of coordinates would imply a change of the name identifiers. According to the recommendations of the IAU (Lortet & Spite 1986, Dickel et al. 1987), and in order to avoid severe confusion, no changes of the identifier should be applied later. This procedure

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is also used in data bases like, e.g., SIMBAD. The used identifiers are just starting to get ambiguous. The current lists (true PNe only) have not a real problem up to now (one case where a letter had to be added). This was also done at other data bases too: e.g. the IRAS data base. But the situation differs. There are no entries added to the IRAS data base anymore. But the currently running surveys for emission line objects in general and PNe (e.g. Parker et al. 1999, Beaulieu et al. 1999, van de Steene & Jacoby 1999, Beaulieu 2000) will add a few hundred sources in the bulge region within the next few years. Thus, and as the accuracy of coordinates is now significantly better than  $0.01$  degrees ( $\equiv 36''$ ), we suggest the use of

$$\text{GPN } GLLL.ll \pm BB.bb$$

in the future. The descriptor GPN stands for galactic planetary nebula. The remaining string is formed as described in the dictionary of nomenclature cited above. This also fulfills the recommendations of the IAU Dictionary of Nomenclature, where a list identifier should contain at least 3 characters (the 'G' after the blank does not count as it is part of the coordinate) and that the coordinate should be chosen not to the limit to be unambiguous, but to that given by the expected coordinate accuracy (worst case).

### 3. THE DATA

A  $5' \times 5'$  field at the nominal position as given in the SECGPN of each source was loaded from the Digital Sky Survey (DSS). These maps were compared, as far as possible, with the finding charts of the original discoveries and with those given in the SECGPN and the CGPN. The coordinates of these plates were calibrated by means of the Guide Star Catalogue (GSC). This yields coordinates better than the pixel resolution (relative to the GSC reference frame). In case of compact nebulae and extended nebulae, where the CSPN could be identified on the DSS scans (the vast majority of the objects), a gaussian fit was used to derive the position. If an object was too faint on the DSS scans, a CCD scan of the Schmidt plate copy (by means of a microscope system) were obtained. In a few cases the images of Schwarz et al. (1992) were taken. In one case (A 58) the image in Pollacco et al. (1992) and in Kimeswenger et al. (2000) and in another case (NGC 5189) that one in Kimeswenger et al. (1998a) were used. In case of about 15 recently discovered nebulae (Jacoby & van de Steene - listed in Acker et al. 1996), NIR finding charts were available only, I band images of the DENIS survey were used. The

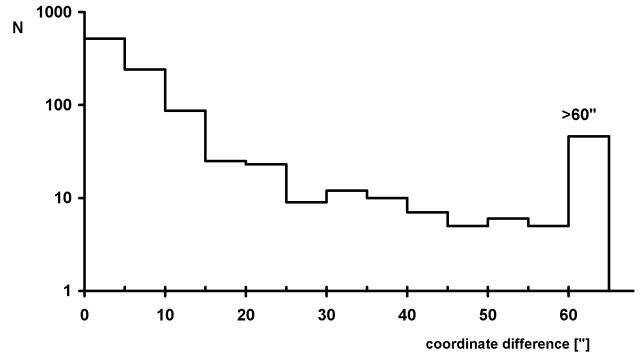


Fig. 1. Frequency histogram of the positional difference between the determination in this work and the positions given in the SECGPN and in Acker et al. (1996).

positions of these auxiliary frames were calibrated by use of the DSS scans. This method gives an overall accuracy  $< 1''$ , relative to the GSC stars. In case of the small number of very extended irregular nebulae without a known CSPN the geometric centre (of the smallest circle embedding the object) was chosen. The coordinates of all objects are given in Tab. 1. Also remarks corresponding to misidentifications on the finding charts (FC) in Acker et al. (1992a) or Acker et al. (1996) are given as supplementary information. For 12 nebulae no identification was possible (listed in Tab. 2). A set of objects (88) has multiple records and misclassifications from the literature, mostly "galaxies" from sky survey plate searches, in the SIMBAD data base (current status). Those are listed in Tab.1 too. In some not so obvious cases they are described in detail in section 5. Fig. 1 gives a frequency histogram of coordinate offsets between those listed in the catalogues and those measured here. As can be seen from the diagram, the new determination of coordinates led to a marked improvement for a significant fraction of PNe.

## 4. CROSSIDENTIFICATIONS

### 4.1. IRAS

The existing crossidentification with IRAS sources were checked by means of the coordinates and the error ellipse of the IRAS PSC (which corresponds to a  $2\sigma$  correlation). In case of extended sources the outermost region of a nebula was used for the boundary condition. The coordinate information and the size of the IRAS error ellipse were used mainly for the decision. Each rejection was then investigated individually on basis of IR colours, size

TABLE 1: Coordinates and crossidentifications for southern PNe

GPN	PN G (this work)	usual name (Acker et al.1992a, 1996)	IRAS	$\alpha$ (J2000.0)	$\delta$ (J2000.0)	$\ell$	$b$	remark(s) and other sources associated
000.00−06.85	000.0−06.8	H 1−62	18100−3220	18 13 18.1	−32 19 43	0.000	−6.851	
000.03+02.06	000.0+02.0	K 6−4	17345−2747	17 37 43.0	−27 49 06	0.031	2.066	
000.10−01.91	000.1−01.9	JaSt 90		17 53 24.4	−29 49 48	0.105	−1.915	
000.12−01.14	000.1−01.1	M 3−43	17472−2924	17 50 24.2	−29 25 20	0.123	−1.145	
000.12−08.09	000.1−08.0	SB 1		18 18 48.9	−32 47 57	0.120	−8.099	
000.13+02.68	000.1+02.6	Al 2−J		17 35 35.1	−27 24 02	0.131	2.689	
000.15−05.61	000.1−05.6	H 2−40		18 08 30.8	−31 36 31	0.156	−5.616	
000.16+17.24	000.1+17.2	PC 12	16409−1851	16 43 53.8	−18 57 13	0.166	17.248	IRAS 1640−188P04
000.18−01.04	000.1−01.0	JaSt 66		17 50 09.9	−29 19 01	0.187	−1.047	
000.19+04.37	000.1+04.3	H 1−16	17262−2623	17 29 23.4	−26 26 04	0.191	4.373	
000.20−02.34	000.1−02.3	B1 3−10		17 55 20.7	−29 57 37	0.205	−2.343	
000.21−01.46	000.2−01.4	JaSt 76	17486−2930	17 51 53.6	−29 30 44	0.212	−1.470	
000.23−01.93	000.2−01.9	M 2−19	17505−2943	17 53 45.8	−29 43 45	0.231	−1.930	
000.26−04.63	000.2−04.6	Wray 16−363		18 04 44.0	−31 02 15	0.268	−4.633	
000.28+01.71	000.2+01.7	K 6−8		17 39 39.3	−27 47 24	0.284	1.719	
000.35−04.65	000.3−04.6	M 2−28	18018−3058	18 05 02.7	−30 58 17	0.359	−4.660	
000.36+06.93	000.3+06.9	Terz N 41		17 20 21.9	−24 51 48	0.367	6.937	
000.36+12.21	000.3+12.2	IC 4634	16585−2145	17 01 33.6	−21 49 34	0.362	12.214	[1]
000.39−02.82	000.3−02.8	M 3−47		17 57 43.3	−30 02 28	0.393	−2.829	
000.41−01.98	000.4−01.9	M 2−20	17512−2935	17 54 25.4	−29 36 08	0.413	−1.990	
000.48−02.92	000.4−02.9	M 3−19	17551−3000	17 58 19.3	−30 00 38	0.484	−2.926	
000.49+01.12	000.4+01.1	JaSt 34		17 42 25.1	−27 55 28	0.493	1.129	
000.54+01.91	000.5+01.9	K 6−7		17 39 31.1	−27 27 48	0.545	1.918	
000.55−03.12	000.5−03.1	KFL 1		17 59 15.7	−30 02 50	0.554	−3.121	PK 000−03
000.57−01.64	000.5−01.6	Al 2−Q	17502−2916	17 53 25.4	−29 17 10	0.576	−1.642	
000.59−01.76	000.5−01.7	JaSt 93		17 53 57.1	−29 20 15	0.590	−1.767	
000.59−05.39	000.5−05.3	SB 2		18 08 34.8	−31 06 51	0.599	−5.392	
000.60−02.37	000.6−02.3	H 2−32		17 56 24.4	−29 38 06	0.602	−2.379	[1]
000.62−01.04	000.6−01.0	JaSt 74	17480−2855	17 51 11.5	−28 56 27	0.625	−1.047	
000.63−01.39	000.6−01.3	B1 3−15		17 52 36.0	−29 06 49	0.633	−1.400	
000.70−02.76	000.7−02.7	M 2−21		17 58 09.6	−29 44 20	0.703	−2.760	
000.71+04.70	000.7+04.7	H 2−11	17263−2546	17 29 26.0	−25 49 08	0.712	4.703	
000.71−03.79	000.7−03.7	M 3−22	17590−3014	18 02 19.2	−30 14 25	0.712	−3.791	
000.72+03.24	000.7+03.2	He 2−250	17318−2634	17 34 54.9	−26 35 56	0.726	3.247	
000.75−00.86	000.7−00.8	JaSt 71		17 50 46.7	−28 44 28	0.750	−0.867	
000.76−07.48	000.7−07.4	M 2−35	18143−3158	18 17 37.2	−31 56 46	0.769	−7.484	
000.77−06.18	000.7−06.1	SB 3	18088−3120	18 12 14.4	−31 20 02	0.778	−6.185	
000.82+01.30	000.8+01.3	JaSt 36		17 42 32.4	−27 33 14	0.822	1.302	
000.86−00.69	000.8−01.2	JaSt 68	17472−2832	17 50 24.0	−28 33 11	0.870	−0.699	
000.87−01.56	000.8−01.5	B1 0	17506−2858	17 53 49.8	−28 59 12	0.879	−1.567	PK 000−013
000.89−07.65	000.8−07.6	H 2−46		18 18 37.4	−31 54 45	0.898	−7.657	
000.90+01.13	000.9+01.1	JaSt 41		17 43 23.3	−27 34 02	0.910	1.135	
000.92−04.85	000.9−04.8	M 3−23	18038−3034	18 07 06.1	−30 34 17	0.924	−4.853	
000.94−00.91	000.9−00.9	JaSt 75		17 51 24.6	−28 35 41	0.947	−0.911	
000.94−02.08	000.9−02.0	B1 3−13	17528−2910	17 56 02.8	−29 11 16	0.950	−2.086	
001.03+01.97	001.0+01.9	K 1−4		17 40 27.4	−27 01 06	1.033	1.978	
001.07−02.61	001.0−02.6	Sa 3−104	17552−2920	17 58 26.2	−29 20 46	1.074	−2.617	
001.11−06.49	001.1−06.4	SB 4		18 14 14.3	−31 11 07	1.111	−6.492	
001.14−01.67	001.1−01.6	Sa 3−92		17 54 52.1	−28 48 57	1.142	−1.677	
001.21−03.90	001.2−03.9	ShWi 2−5		18 03 53.8	−29 51 21	1.215	−3.901	PK 358−03 8, PK 001−03 7, PK 001−03
001.23+00.71	001.2+00.7	JaSt 53		17 45 46.9	−27 30 35	1.236	0.712	
001.24+02.17	001.2+02.1	He 2−262		17 40 12.9	−26 44 21	1.241	2.171	
001.26+00.88	001.1+00.8	JaSt 51		17 45 11.1	−27 23 38	1.266	0.886	
001.28−01.26	001.2−01.2	JaSt 92		17 53 34.9	−28 28 54	1.287	−1.264	
001.29−03.04	001.2−03.0	H 1−47	17574−2921	18 00 37.6	−29 21 51	1.295	−3.040	
001.30−05.66	001.3−05.6	SB 5		18 11 15.9	−30 37 39	1.304	−5.667	
001.33−01.28	001.3−01.2	B1 M	17506−2826	17 53 47.3	−28 27 15	1.334	−1.289	
001.38−01.08	001.3−01.0	JaSt 86		17 53 06.7	−28 18 11	1.389	−1.084	
001.42+05.38	001.4+05.3	H 1−15	17255−2448B	17 28 37.7	−24 51 07	1.424	5.385	
001.44−03.40	001.4−03.4	ShWi 2−1		18 02 25.8	−29 25 05	1.442	−3.409	
001.50−00.76	001.5−00.7	K 6−17		17 52 08.8	−28 02 15	1.509	−0.766	
001.52+03.63	001.5+03.6	K 5−5	17322−2540	17 35 22.2	−25 42 48	1.529	3.638	
001.59−06.71	001.5−06.7	SwSt 1	18129−3053	18 16 12.2	−30 52 08	1.591	−6.717	
001.60+01.58	001.6+01.5	K 6−10		17 43 17.1	−26 44 15	1.604	1.590	
001.63+00.99	001.6+00.9	JaSt 52		17 45 37.3	−27 01 20	1.634	0.997	
001.63−01.31	001.6−01.3	B1 Q	17513−2812	17 54 35.0	−28 12 44	1.631	−1.318	
001.65+00.18	001.6+00.1	JaSt 60		17 48 46.2	−27 25 36	1.651	0.188	
001.68−00.60	001.6−00.6	JaSt 77		17 51 56.1	−27 47 59	1.690	−0.605	PK 001−00 3
001.68−05.95	001.6−05.9	SB 6		18 13 15.9	−30 26 01	1.680	−5.955	
001.70+05.73	001.7+05.7	H 1−14	17249−2423	17 28 01.9	−24 25 22	1.710	5.734	
001.71+01.30	001.7+01.3	JaSt 49	17414−2646	17 44 37.6	−26 47 25	1.716	1.307	
001.71−04.45	001.7−04.4	H 1−55		18 07 14.6	−29 41 25	1.714	−4.456	
001.73−04.60	001.7−04.6	H 1−56	18047−2945	18 07 53.9	−29 44 34	1.736	−4.606	
001.77−01.60	001.7−01.6	H 2−31		17 56 02.5	−28 14 10	1.773	−1.607	
001.79−03.87	001.8−03.8	ShWi 2−7		18 05 05.7	−29 20 12	1.797	−3.876	
001.86−00.53	001.8−00.5	JaSt 78	17489−2735	17 52 04.0	−27 36 41	1.866	−0.534	
001.95+02.30	001.9+02.3	K 5−10		17 41 24.7	−26 03 50	1.957	2.301	
002.01−02.05	002.0−02.0	H 1−45	17552−2814	17 58 21.9	−28 14 53	2.019	−2.056	
002.02−06.22	002.0−06.2	M 2−33	18118−3016	18 15 06.5	−30 15 33	2.023	−6.225	
002.10−13.44	002.0−13.4	IC 4776	18425−3323	18 45 50.7	−33 20 34	2.100	−13.444	
002.11−04.20	002.1−04.2	H 1−54	18039−2913	18 07 07.3	−29 13 05	2.116	−4.205	
002.13−02.23	002.1−02.2	M 3−20	17561−2813	17 59 19.4	−28 13 49	2.139	−2.230	
002.14+01.74	002.1+01.7	JaFu 1		17 43 57.2	−26 11 57	2.141	1.744	
002.14+03.36	002.1+03.3	PBOZ 24	17347−2519	17 37 51.3	−25 20 20	2.146	3.365	
002.22−02.78	002.2−02.7	M 2−23	17585−2825	18 01 42.7	−28 25 44	2.227	−2.785	ESO 456−37
002.24+00.55	002.2+00.5	Terz N 2337		17 48 44.4	−26 43 30	2.249	0.556	

TABLE 1: continued

GPN	PN G (this work)	usual name (Acker et al.1992a, 1996)	IRAS	$\alpha$ (J2000.0)	$\delta$ (J2000.0)	$\ell$	$b$	remark(s) and other sources associated
002.26−06.39	002.2−06.3	H 1−63		18 16 19.3	−30 07 26	2.266	−6.394	
002.28−02.57	002.2−02.5	KFL 2		18 00 59.9	−28 16 20	2.286	−2.572	PK 002−02
002.29−09.48	002.2−09.4	Cn 1−5	18259−3132	18 29 11.6	−31 29 59	2.291	−9.481	
002.34+02.25	002.3+02.2	Terz N 123		17 42 30.0	−25 45 25	2.347	2.254	
002.35−03.41	002.3−03.4	H 2−37		18 04 28.9	−28 37 38	2.352	−3.413	
002.35−07.86	002.3−07.8	M 2−41	18194−3045	18 22 34.5	−30 43 29	2.353	−7.867	
002.43+05.84	002.4+05.8	NGC 6369	17262−2343	17 29 20.5	−23 45 35	2.432	5.847	
002.45−03.25	002.4−03.2	M 1−38		18 04 05.8	−28 27 47	2.455	−3.259	
002.48−03.74	002.4−03.7	Wray 17−107	18029−2840	18 06 05.8	−28 40 30	2.483	−3.746	
002.51+05.11	002.5+05.1	GLMP 575	17291−2402	17 32 12.8	−24 05 00	2.518	5.120	
002.55−05.42	002.5−05.4	KFL 14		18 13 00.5	−29 25 12	2.552	−5.429	
002.58−01.77	002.5−01.7	Pe 2−11		17 58 31.1	−27 37 06	2.582	−1.771	
002.60+02.10	002.6+02.1	K 5−13	17407−2535	17 43 39.4	−25 36 43	2.607	2.109	Terz N 1580
002.60+05.59	002.6+05.5	K 5−3	17276−2342	17 30 41.2	−23 44 59	2.609	5.594	
002.62+08.19	002.6+08.1	H 1−11	17182−2215	17 21 17.8	−22 18 35	2.622	8.190	
002.67+01.75	002.6+01.7	K 5−15		17 45 08.8	−25 43 57	2.680	1.759	
002.68−03.46	002.6−03.4	M 1−37	18022−2822	18 05 25.9	−28 22 04	2.681	−3.469	
002.69+04.21	002.6+04.2	Th 3−27	17329−2423	17 35 58.6	−24 25 30	2.692	4.213	
002.71−52.43	002.7−52.4	IC 5148−50	21565−3937	21 59 35.1	−39 23 08	2.712	−52.440	
002.73−04.85	002.7−04.8	M 1−42	18079−2859	18 11 05.1	−28 59 00	2.739	−4.852	
002.79+01.69	002.8+01.7	H 2−20	17425−2538	17 45 39.8	−25 40 01	2.796	1.694	
002.80+01.74	002.8+01.8	K 5−16		17 45 28.6	−25 38 10	2.801	1.746	Terz N 1567
002.85−02.29	002.8−02.2	Pe 2−12	17580−2738	18 01 10.3	−27 38 20	2.856	−2.292	
002.90−04.01	002.9−03.9	H 2−39		18 08 05.8	−28 26 11	2.905	−4.015	
002.92+06.56	002.9+06.5	PM 1−149	17248−2254	17 27 53.7	−22 57 17	2.928	6.565	
003.00−02.63	003.0−02.6	KFL 4		18 02 51.7	−27 41 00	3.002	−2.639	PK 003−02
003.16+04.14	003.1+04.1	K 5−7		17 37 20.2	−24 03 30	3.169	4.147	
003.17+02.92	003.1+02.9	Hb 4	17388−2440	17 41 52.9	−24 42 08	3.171	2.928	
003.19+03.41	003.1+03.4	H 2−17	17370−2424	17 40 07.4	−24 25 42	3.193	3.412	[1]
003.26−04.42	003.2−04.4	KFL 12		18 10 30.8	−28 19 23	3.261	−4.427	PK 003−04
003.28−06.19	003.2−06.2	M 2−36	18144−2909	18 17 41.5	−29 08 20	3.283	−6.199	
003.30−07.52	003.3−07.5	KFL 19		18 23 08.9	−29 43 25	3.310	−7.523	PK 003−07
003.32−04.65	003.3−04.6	Ap 1−12	18084−2823	18 11 35.1	−28 22 37	3.326	−4.660	
003.32−06.19	003.3−06.1	SB 7		18 17 46.5	−29 06 12	3.323	−6.199	
003.46+06.34	003.4+06.3	GLMP 572	17269−2235	17 29 58.2	−22 37 33	3.468	6.343	
003.49−04.87	003.4−04.8	H 2−43	18095−2820	18 12 48.0	−28 20 00	3.492	−4.874	
003.53−04.62	003.5−04.6	NGC 6565	18087−2811	18 11 52.5	−28 10 43	3.532	−4.622	
003.55−02.44	003.5−02.4	IC 4673	18001−2706	18 03 18.4	−27 06 23	3.553	−2.442	
003.61+03.18	003.6+03.1	M 2−14	17389−2409	17 41 57.3	−24 11 15	3.618	3.185	
003.65−02.35	003.6−02.3	M 2−26		18 03 11.8	−26 58 32	3.655	−2.357	
003.67+04.95	003.6+04.9	K 5−6	17324−2309	17 35 31.2	−23 11 49	3.677	4.959	
003.70+07.93	003.7+07.9	H 2−8		17 24 45.4	−21 33 37	3.701	7.937	
003.78−04.65	003.7−04.6	H 2−30	18094−2758	18 12 34.5	−27 58 11	3.790	−4.658	
003.80+05.33	003.8+05.3	H 2−15	17314−2251	17 34 26.8	−22 53 20	3.805	5.332	
003.85−04.35	003.8−04.3	H 1−59		18 11 29.3	−27 46 16	3.850	−4.352	
003.85−04.57	003.8−04.5	H 2−41		18 12 23.8	−27 52 14	3.858	−4.576	
003.89−17.19	003.8−17.1	Hb 8	19022−3316	19 05 35.9	−33 11 37	3.895	−17.195	
003.92−02.32	003.9−02.3	M 1−35	18005−2643	18 03 39.3	−26 43 34	3.923	−2.323	
003.93−03.12	003.9−03.1	KFL 7		18 06 50.0	−27 06 16	3.938	−3.126	PK 003−03
003.96+01.65	003.9+01.6	K 6−14		17 48 28.5	−24 41 25	3.962	1.656	Terz N 2111
003.96−14.90	003.9−14.9	Hb 7	18523−3219	18 55 37.8	−32 15 48	3.964	−14.903	
004.00−11.10	004.0−11.1	M 3−29	18362−3043	18 39 25.8	−30 40 36	4.008	−11.102	PK 004−03 B
004.04−05.80	004.0−05.8	Pe 1−12		18 17 42.4	−28 17 16	4.042	−5.806	
004.08−03.00	004.0−03.0	M 2−29	18035−2655	18 06 40.9	−26 54 56	4.087	−3.005	
004.14−03.86	004.1−03.8	KFL 11		18 10 12.3	−27 16 37	4.149	−3.866	PK 004−03 A
004.19−04.39	004.2−04.3	H 1−60		18 12 25.2	−27 29 14	4.199	−4.399	
004.24−03.25	004.2−03.2	KFL 10		18 08 01.4	−26 54 02	4.245	−3.259	
004.26−05.22	004.2−05.2	SB 8		18 15 49.8	−27 49 03	4.265	−5.220	
004.27−05.91	004.2−05.9	M 2−37	18154−2809	18 18 38.3	−28 07 60	4.275	−5.916	
004.33+01.84	004.3+01.8	H 2−24		17 48 36.6	−24 16 35	4.333	1.843	
004.37−02.65	004.3−02.6	H 1−53		18 05 57.5	−26 29 42	4.377	−2.659	
004.51+06.84	004.5+06.8	H 2−12	17276−2126	17 30 35.7	−21 28 50	4.515	6.842	
004.60−09.93	004.6−09.9	SB 9		18 35 42.4	−29 38 23	4.610	−9.930	
004.64+06.09	004.6+06.0	H 1−24	17306−2144	17 33 37.6	−21 46 25	4.649	6.091	
004.76−05.53	004.7−05.5	SB 10		18 18 07.1	−27 31 35	4.762	−5.532	
004.77−11.89	004.7−11.8	He 2−418		18 44 14.6	−30 19 36	4.776	−11.896	
004.80−05.02	004.8−05.0	M 3−26	18130−2715	18 16 11.5	−27 14 58	4.807	−5.024	
004.86+02.05	004.8+02.0	H 2−25	17459−2342	17 49 00.6	−23 42 55	4.861	2.053	
004.87−22.72	004.8−22.7	He 2−436	19288−3419	19 32 06.8	−34 12 57	4.871	−22.727	
004.93+04.93	004.9+04.9	M 1−25	17355−2206	17 38 30.3	−22 08 39	4.939	4.936	
004.97−04.96	004.9−04.9	M 1−44	18131−2705	18 16 17.4	−27 04 32	4.971	−4.962	
005.00+04.49	005.0+04.4	H 1−27	17372−2217	17 40 17.9	−22 19 17	5.008	4.490	
005.02−03.94	005.0−03.9	H 2−42		18 12 22.9	−26 32 55	5.023	−3.944	
005.03+03.06	005.0+03.0	Pe 1−9		17 45 36.8	−23 02 25	5.036	3.069	
005.12−03.08	005.1−03.0	H 1−58	18061−2603	18 09 13.9	−26 02 30	5.130	−3.082	
005.13−08.90	005.1−08.9	Hf 2−2	18293−2845	18 32 30.9	−28 43 21	5.138	−8.903	
005.17+02.01	005.1+02.0	K 5−19		17 49 51.4	−23 27 43	5.178	2.017	
005.20+05.68	005.2+05.6	M 3−12	17334−2129	17 36 22.7	−21 31 12	5.208	5.686	
005.20−18.69	005.2−18.6	StWr 2−21		19 14 23.3	−32 34 17	5.206	−18.691	
005.25+04.28	005.2+04.2	M 3−13	17385−2211	17 41 36.7	−22 13 03	5.257	4.286	
005.26−05.92	005.2−05.9	SB 11	18176−2717	18 20 44.6	−27 15 49	5.267	−5.926	
005.42−01.93	005.4−01.9	PBOZ 34	18023−2513	18 05 25.3	−25 13 36	5.426	−1.935	
005.47−06.11	005.4−06.1	SB 12		18 21 55.1	−27 09 45	5.479	−6.111	
005.51−04.00	005.5−04.0	H 2−44	18105−2609	18 13 40.6	−26 08 40	5.517	−4.007	
005.54−02.50	005.5−02.5	M 3−24	18048−2524	18 07 54.0	−25 24 03	5.546	−2.510	
005.55+02.70	005.5+02.7	H 1−34	17451−2245	17 48 07.7	−22 46 48	5.559	2.708	
005.55+06.18	005.5+06.1	M 3−11	17323−2055	17 35 21.4	−20 57 24	5.560	6.187	

TABLE 1: continued

GPN	PN G (this work)	usual name (Acker et al.1992a, 1996)	IRAS	$\alpha$ (J2000.0)	$\delta$ (J2000.0)	$\ell$	$b$	remark(s) and other sources associated
005.64−04.76	005.6−04.7	KFL 16		18 16 54.3	−26 23 23	5.643	−4.761	PK 005−04
005.73−05.35	005.7−05.3	M 2−38	18163−2636	18 19 25.2	−26 35 21	5.730	−5.352	
005.77−03.63	005.7−03.6	KFL 13		18 12 45.1	−25 44 27	5.774	−3.632	
005.88+05.13	005.8+05.1	H 2−16	17369−2112	17 39 55.4	−21 14 12	5.888	5.135	
005.88−06.14	005.8−06.1	NGC 6620	18198−2650	18 22 54.3	−26 49 18	5.885	−6.149	
005.97−02.61	005.9−02.6	MaC 1−10	18061−2505	18 09 12.7	−25 04 29	5.976	−2.611	
006.04+02.86	006.0+02.8	Th 4−3	17456−2215	17 48 37.4	−22 16 49	6.047	2.867	
006.04−03.62	006.0−03.6	M 2−31	18101−2530	18 13 16.4	−25 30 05	6.041	−3.622	
006.07+03.15	006.0+03.1	M 1−28	17446−2205	17 47 38.2	−22 06 20	6.080	3.153	
006.07−41.91	006.0−41.9	PRMG 1		21 05 53.6	−37 08 41	6.073	−41.918	
006.18+08.36	006.1+08.3	M 1−20	17260−1913	17 28 57.6	−19 15 53	6.188	8.362	
006.29+01.05	006.2+01.0	HaTr 8		17 55 55.8	−22 58 60	6.300	1.058	
006.29−03.75	006.2−03.7	KFL 15	18112−2521	18 14 19.5	−25 20 50	6.290	−3.757	PK 006−03
006.34+03.32	006.3+03.3	H 2−22	17445−2146	17 47 33.9	−21 47 24	6.342	3.330	
006.38+04.46	006.3+04.4	H 2−18		17 43 28.8	−21 09 51	6.385	4.467	
006.45+02.01	006.4+02.0	M 1−31	17496−2221	17 52 41.4	−22 21 57	6.455	2.015	
006.45−04.66	006.4−04.6	Pe 2−13		18 18 13.4	−25 38 09	6.451	−4.669	Ve 3−59
006.55−03.16	006.5−03.1	H 1−61	18094−2450	18 12 33.9	−24 49 60	6.553	−3.162	
006.55−05.83	006.5−05.8	SB 13		18 23 00.3	−26 05 12	6.551	−5.831	
006.58+03.40	006.5+03.4	PBOZ 29	17448−2131	17 47 49.1	−21 32 22	6.587	3.408	
006.76−02.25	006.7−02.2	M 1−41	18064−2413	18 09 31.3	−24 12 32	6.769	−2.255	[13] [NS84] 15, ESO 521−39, Ve 3−62
006.80+04.16	006.8+04.1	M 3−15	17425−2056	17 45 31.7	−20 58 01	6.803	4.161	
006.84−08.66	006.8−08.6	Al 1	18318−2708	18 34 55.2	−27 06 24	6.842	−8.669	
006.85+02.33	006.8+02.3	Th 4−7	17493−2150	17 52 22.6	−21 51 14	6.859	2.337	
006.85−03.49	006.8−03.4	H 2−45		18 14 28.7	−24 43 37	6.854	−3.494	
006.87−19.86	006.8−19.8	Wray 16−423		19 22 10.5	−31 30 39	6.872	−19.864	
006.89+02.02	006.8+02.0	Pe 2−10		17 53 37.2	−21 58 42	6.898	2.026	
007.04+06.32	007.0+06.3	M 1−24	17352−1935	17 38 11.6	−19 37 37	7.049	6.327	
007.04−06.84	007.0−06.8	VY 2−1	18248−2608	18 27 59.7	−26 06 48	7.042	−6.840	
007.10−06.04	007.0−06.0	H 1−66	18218−2543	18 24 57.5	−25 41 56	7.101	−6.044	
007.27+01.84	007.2+01.8	Hb 6	17521−2144	17 55 07.0	−21 44 41	7.275	1.844	
007.53+04.37	007.5+04.3	Th 4−1		17 46 20.7	−20 13 48	7.535	4.378	
007.57+07.49	007.5+07.4	M 1−22	17322−1832	17 35 10.2	−18 34 20	7.571	7.491	Ve 3−60
007.67+06.94	007.6+06.9	M 1−23	17344−1844	17 37 21.9	−18 46 41	7.672	6.940	
007.77−05.37	007.7−05.3	SB 14		18 23 42.7	−24 47 31	7.780	−5.376	
007.81−03.70	007.8−03.7	M 2−34		18 17 15.9	−23 58 54	7.813	−3.700	
007.88−04.40	007.8−04.4	H 1−65	18170−2416	18 20 08.8	−24 15 05	7.883	−4.407	
007.98+10.15	007.9+10.1	MaC 1−4		17 26 38.1	−16 48 29	7.983	10.151	
008.07+03.90	008.0+03.9	NGC 6445	17462−1959	17 49 14.9	−20 00 36	8.075	3.906	
008.14−04.75	008.1−04.7	M 2−39	18189−2412	18 22 01.0	−24 10 40	8.147	−4.750	
008.22−04.84	008.2−04.8	M 2−42	18194−2410	18 22 32.1	−24 09 28	8.220	−4.846	
008.28+06.87	008.2+06.8	He 2−260	17360−1815	17 38 57.3	−18 17 36	8.287	6.874	
008.33−01.10	008.3−01.1	M 1−40	18054−2217	18 08 26.0	−22 16 52	8.335	−1.104	
008.39−07.31	008.3−07.3	NGC 6644	18295−2510	18 32 34.7	−25 07 44	8.397	−7.320	
008.43−03.66	008.4−03.6	H 1−64	18153−2326	18 18 23.9	−23 24 55	8.436	−3.662	
008.64−07.01	008.6−07.0	He 2−406	18288−2448	18 31 52.9	−24 46 16	8.647	−7.018	
008.65−02.61	008.6−02.6	MaC 1−11		18 14 50.9	−22 43 55	8.652	−2.620	
008.86+05.22	008.8+05.2	Th 4−2	17432−1838	17 46 09.6	−18 39 29	8.864	5.224	
009.00+00.41	009.0+00.4	GLMP 707	18011−2057	18 04 08.3	−20 57 07	9.008	0.416	
009.04+04.14	009.0+04.1	Th 4−5	17475−1902	17 50 28.2	−19 03 09	9.048	4.146	
009.30−06.52	009.3−06.5	SB 15		18 31 14.7	−23 58 06	9.304	−6.527	
009.33+02.79	009.3+02.8	Th 4−9	17530−1929	17 56 00.5	−19 29 27	9.330	2.797	
009.34+04.18	009.3+04.1	Th 4−6	17480−1846	17 50 57.2	−18 46 49	9.341	4.186	
009.36+05.77	009.3+05.7	Hen 3−1475	17423−1755	17 45 14.1	−17 56 45	9.365	5.779	
009.40−05.04	009.4−05.0	NGC 6629	18226−2313	18 25 42.4	−23 12 10	9.407	−5.049	
009.40−09.88	009.4−09.8	M 3−32	18416−2524	18 44 43.2	−25 21 33	9.405	−9.888	
009.49−05.68	009.4−05.6	SB 16		18 28 21.2	−23 25 20	9.491	−5.690	
009.63−10.65	009.6−10.6	M 3−33	18451−2532	18 48 12.2	−25 28 52	9.634	−10.651	
009.65+14.81	009.6+14.8	NGC 6309	17112−1251	17 14 04.3	−12 54 39	9.655	14.813	
009.66+10.51	009.6+10.5	A 41	17262−1510	17 29 02.0	−15 13 04	9.662	10.514	
009.87−07.55	009.8−07.5	GJJC 1	18333−2357	18 36 22.8	−23 55 19	9.875	−7.556	
009.89−04.63	009.8−04.6	H 1−67	18220−2236	18 25 04.8	−22 34 52	9.894	−4.634	
010.09+00.73	010.1+00.7	NGC 6537	18021−1950	18 05 13.0	−19 50 34	10.099	0.740	
010.25+07.49	010.2+07.5	LS 4331	17381−1616	17 41 00.0	−16 18 13	10.255	7.493	
010.49+04.55	010.4+04.5	M 2−17	17491−1735	17 52 04.8	−17 36 06	10.496	4.553	
010.65+03.26	010.6+03.2	Th 4−10	17541−1806	17 57 06.5	−18 06 41	10.657	3.262	
010.70+07.47	010.7+07.4	Sa 2−230	17391−1554	17 42 01.9	−15 56 07	10.702	7.471	
010.77−06.47	010.7−06.4	IC 4732	18308−2241	18 33 54.6	−22 38 41	10.770	−6.477	
010.80−06.70	010.7−06.7	Pe 1−13	18318−2245	18 34 51.6	−22 43 17	10.800	−6.707	
010.81−01.82	010.8−01.8	NGC 6578	18132−2028	18 16 16.5	−20 27 03	10.818	−1.827	
010.89+18.05	010.8+18.0	M 2−9	17028−1004	17 05 37.9	−10 08 32	10.899	18.056	
011.00+06.28	011.0+06.2	M 2−15	17440−1616	17 46 54.5	−16 17 25	11.000	6.284	
011.01+05.89	011.0+05.8	NGC 6439	17454−1627	17 48 19.8	−16 28 45	11.011	5.894	
011.04−05.11	011.0−05.1	M 1−47	18261−2148	18 29 11.1	−21 46 53	11.045	−5.111	
011.13+11.55	011.1+11.5	M 2−13	17257−1323	17 28 34.2	−13 26 21	11.139	11.551	
011.19+07.01	011.1+07.0	Sa 2−237		17 44 42.1	−15 45 13	11.192	7.014	
011.19−07.91	011.1−07.9	SB 17	18372−2257	18 40 19.9	−22 54 29	11.197	−7.920	
011.34−09.44	011.3−09.4	H 2−48	18435−2330	18 46 35.1	−23 26 48	11.341	−9.448	
011.39+02.84	011.3+02.8	Th 4−11	17572−1740	18 00 08.8	−17 40 43	11.392	2.850	
011.39+17.98	011.4+17.9	DHW 1−2		17 06 55.5	−09 47 03	11.398	17.983	
011.48−07.36	011.4−07.3	SB 18		18 38 43.2	−22 24 08	11.489	−7.362	[12], [14], PK 011+18 1
011.74−00.64	011.7−00.6	NGC 6567	18108−1905	18 13 45.1	−19 04 34	11.744	−0.650	
011.79−00.10	011.7−00.0	M 1−43		18 11 48.9	−18 46 21	11.790	−0.102	
011.80−06.68	011.7−06.6	M 1−55		18 36 42.5	−21 48 59	11.808	−6.684	
011.97+04.23	011.9+04.2	M 1−32	17534−1628	17 56 20.0	−16 29 04	11.977	4.234	
012.21+04.92	012.2+04.9	PM 1−188	17514−1555	17 54 21.2	−15 55 52	12.220	4.922	
012.52−09.87	012.5−09.8	M 1−62	18474−2237	18 50 26.0	−22 34 23	12.528	−9.871	

TABLE 1: continued

GPN	PN G (this work)	usual name (Acker et al.1992a, 1996)	IRAS	$\alpha$ (J2000.0)	$\delta$ (J2000.0)	$\ell$	$b$	remark(s) and other sources associated
012.60−02.69	012.6−02.7	M 1−45	18201−1918	18 23 07.9	−19 17 05	12.607	−2.700	
013.00−04.31	013.0−04.3	Pe 2−14	18271−1942	18 29 59.5	−19 40 38	13.009	−4.315	
013.11+04.15	013.1+04.1	M 1−33	17561−1532	17 58 58.8	−15 32 15	13.118	4.152	
013.13−13.21	013.1−13.2	GLMP 869	19016−2330	19 04 43.6	−23 26 09	13.134	−13.219	
013.31+32.73	013.3+32.7	Sn 1		16 21 04.4	−00 16 11	13.320	32.735	
013.47−03.94	013.4−03.9	M 1−48		18 29 30.0	−19 05 46	13.473	−3.945	
013.72−10.61	013.7−10.6	Y−C 2−32	18525−2153	18 55 30.7	−21 49 39	13.723	−10.616	
013.79−15.30	013.7−15.3	Wei 1−5		19 14 11.6	−23 41 21	13.796	−15.307	
013.84−07.99	013.8−07.9	PC 21		18 45 35.3	−20 35 00	13.847	−7.993	
013.88−02.81	013.8−02.8	SaWe 3		18 26 03.2	−18 12 36	13.882	−2.811	
014.02−05.52	014.0−05.5	V−V 3−5	18335−1922	18 36 32.3	−19 19 29	14.028	−5.528	
014.27+04.21	014.2+04.2	Sa 3−111	17582−1430	18 01 06.3	−14 30 23	14.271	4.214	PK 014+04 1
014.28+03.79	014.2+03.8	GLMP 698	17597−1442	18 02 38.3	−14 42 04	14.283	3.796	
014.29−07.37	014.2−07.3	M 3−31	18410−1958	18 44 01.8	−19 54 53	14.291	−7.370	
014.35−05.53	014.3−05.5	V−V 3−6	18342−1904	18 37 11.1	−19 02 23	14.353	−5.536	
014.44−06.14	014.4−06.1	SB 19	18367−1916	18 39 40.1	−19 14 13	14.441	−6.148	
014.62−04.38	014.6−04.3	M 1−50	18304−1818	18 33 20.9	−18 16 38	14.621	−4.380	
014.75−11.88	014.7−11.8	SaWe 4		19 02 17.6	−21 26 54	14.750	−11.886	
014.88−25.60	014.8−25.6	HDW 12		19 58 13.1	−26 28 16	14.880	−25.602	HaWe 14
014.89−03.12	014.9−03.1	SaSt 3−166		18 29 11.2	−17 27 13	14.899	−3.122	[2], SS73 166
014.89−08.48	014.8−08.4	SB 20		18 49 24.2	−19 52 14	14.891	−8.485	
014.96+06.44	014.9+06.4	K 2−5		17 54 32.0	−12 48 01	14.969	6.445	
015.49−04.59	015.4−04.5	M 1−53	18328−1738	18 35 48.3	−17 36 09	15.491	−4.593	
015.62−03.01	015.6−03.0	A 44		18 30 11.4	−16 45 28	15.628	−3.014	
015.92+03.35	015.9+03.3	M 1−39	18046−1329	18 07 30.7	−13 28 48	15.928	3.358	
016.00+13.59	016.0+13.5	A 42	17288−0816	17 31 29.1	−08 19 10	16.005	13.594	
016.01−07.62	016.0−07.6	SB 21	18452−1832	18 48 11.3	−18 29 42	16.012	−7.625	
016.06−04.38	016.0−04.3	M 1−54	18332−1702	18 36 08.4	−16 59 57	16.066	−4.390	
016.15−04.78	016.1−04.7	M 1−56	18348−1708	18 37 46.3	−17 05 46	16.157	−4.781	
016.45−01.97	016.4−01.9	M 1−46	18250−1534	18 27 56.3	−15 32 55	16.451	−1.975	
016.73−07.35	016.7−07.3	SB 22		18 48 30.4	−17 43 54	16.737	−7.356	
016.97−02.07	016.9−02.0	Sa 3−134	18264−1509	18 29 19.9	−15 07 40	16.980	−2.078	
017.02+11.09	017.0+11.1	PDJ 1	17395−0841	17 42 14.4	−08 43 20	17.023	11.095	
017.30−21.97	017.3−21.9	A 65	19435−2315	19 46 34.2	−23 08 12	17.305	−21.972	
017.54−07.41	017.5−07.4	SB 23		18 50 13.2	−17 02 22	17.545	−7.417	
017.55−09.28	017.5−09.2	SB 24		18 57 16.6	−17 50 51	17.554	−9.284	
017.61−01.16	017.6−01.1	PN 1824−1410		18 27 13.3	−14 08 36	17.615	−1.169	
017.61−10.24	017.6−10.2	A 51	18581−1816	19 01 01.4	−18 12 16	17.616	−10.242	ESO 592−7
017.72−02.95	017.7−02.9	M 1−52	18311−1454	18 33 58.5	−14 52 25	17.723	−2.956	
017.90−04.83	017.9−04.8	M 3−30	18383−1536	18 41 14.8	−15 33 40	17.909	−4.831	
018.08+20.15	018.0+20.1	Na 1	17102−0312	17 12 51.9	−03 15 59	18.086	20.152	
018.63−02.23	018.6−02.2	M 3−54	18302−1346	18 33 03.8	−13 44 20	18.630	−2.238	
018.90+03.68	018.9+03.6	M 4−8	18093−1043	18 12 09.6	−10 42 58	18.904	3.689	
018.90+04.17	018.9+04.1	M 3−52		18 10 26.4	−10 29 05	18.905	4.171	
019.20−04.49	019.2−04.4	PN 1839−1418	18243−1410	18 42 24.8	−14 15 15	19.207	−4.492	
019.23−02.24	019.2−02.2	M 4−10	18313−1314	18 34 13.9	−13 12 25	19.233	−2.246	
019.40−05.34	019.4−05.3	M 1−61	18430−1430	18 45 55.1	−14 27 39	19.405	−5.343	
019.40−19.66	019.4−19.6	K 2−7		19 40 29.6	−20 27 07	19.407	−19.661	[3]
019.42−13.62	019.4−13.6	DeHt 3		19 17 04.0	−18 01 38	19.422	−13.624	
019.75+03.27	019.7+03.2	M 3−25	18125−1011	18 15 17.0	−10 10 09	19.752	3.274	
019.79−04.52	019.7−04.5	M 1−60	18408−1347	18 43 38.1	−13 44 49	19.795	−4.527	
019.84−23.78	019.8−23.7	A 66	19545−2144	19 57 31.5	−21 36 46	19.842	−23.782	
019.87+05.66	019.8+05.6	CTS 1	18042−0855	18 06 59.8	−08 55 34	19.870	5.663	PK 019+05 1
019.94+00.91	019.9+00.9	M 3−53	18213−1108	18 24 07.2	−11 06 46	19.943	0.914	
020.19−00.65	020.2−00.6	A 45		18 30 15.4	−11 36 56	20.198	−0.651	
020.46+00.67	020.4+00.6	PN 1823−1047	18395−1418	18 25 58.0	−10 45 28	20.468	0.680	
020.77−05.96	020.7−05.9	Sa 1−8	18479−1334	18 50 44.4	−13 31 03	20.779	−5.967	
020.99−01.12	020.9−01.1	M 1−51	18307−1109	18 33 29.0	−11 07 26	20.999	−1.125	
021.17−05.98	021.1−05.9	M 1−63	18486−1314	18 51 31.0	−13 10 37	21.170	−5.984	
021.21−03.93	021.2−03.9	We 1−7	18413−1216	18 44 06.5	−12 12 49	21.219	−3.937	
021.74−00.67	021.7−00.6	M 3−55		18 33 14.7	−10 15 16	21.744	−0.672	
021.82−00.47	021.8−00.4	M 3−28	18299−1008	18 32 41.3	−10 05 50	21.820	−0.478	[NS84] 16
021.90+02.72	021.9+02.7	VSP 2−19	18231−1047	18 21 21.2	−08 31 42	21.908	2.727	PK 021+02 1, [VP95] WSR1 17
022.01−04.34	022.0−04.3	GLMP 829	18442−1144	18 47 04.0	−11 41 11	22.018	−4.344	JP11 285
022.07−03.18	022.0−03.1	M 1−58	18401−1109	18 42 57.0	−11 06 53	22.071	−3.185	[VP95] WSR1 21, G 155−34
022.18−02.40	022.1−02.4	M 1−57	18375−1042	18 40 20.3	−10 39 47	22.181	−2.409	
022.57+01.05	022.5+01.0	MaC 1−13	18258−0845	18 28 35.3	−08 43 23	22.570	1.055	
022.58+04.80	022.5+04.8	MA 2	18125−0658	18 15 13.4	−06 57 13	22.585	4.808	
023.02+04.30	023.0+04.3	MA 3		18 17 49.4	−06 48 22	23.020	4.308	PK 023+04 1
023.33−07.60	023.3−07.6	MaC 1−16		19 01 21.8	−11 58 20	23.332	−7.602	
023.80−01.79	023.8−01.7	K 3−11	18383−0858	18 41 07.3	−08 55 59	23.810	−1.791	
023.90+01.21	023.9+01.2	MA 13	18277−0729	18 30 30.4	−07 27 39	23.909	1.219	
023.92−02.34	023.9−02.3	M 1−59	18405−0907	18 43 20.2	−09 04 49	23.928	−2.344	
024.12+03.88	024.1+03.8	M 2−40	18187−0603	18 21 23.9	−06 01 56	24.123	3.885	
024.21+05.93	024.2+05.9	M 4−9	18116−0500	18 14 18.3	−04 59 22	24.218	5.933	
024.25−05.20	024.2−05.2	M 4−11	18515−1009	18 54 17.7	−10 05 12	24.253	−5.209	
024.36−03.36	024.3−03.3	Pe 1−17	18450−0912	18 47 48.9	−09 09 07	24.367	−3.362	
024.83−02.77	024.8−02.7	M 2−46	18437−0831	18 46 34.6	−08 28 02	24.839	−2.778	
025.02−11.66	025.0−11.6	A 60		19 19 18.6	−12 14 54	25.023	−11.669	
025.41−04.63	025.3−04.6	K 4−8	18516−0851	18 54 19.6	−08 47 37	25.416	−4.634	
025.41−04.71	025.4−04.7	IC 1295	18519−0853	18 54 36.6	−08 49 49	25.415	−4.713	
025.85−17.91	025.8−17.9	NGC 6818	19411−1416	19 43 57.6	−14 09 12	25.858	−17.911	
025.91−02.18	025.9−02.1	Pe 1−15	18436−0717	18 46 24.4	−07 14 35	25.911	−2.184	
025.92−00.98	025.9−00.9	Pe 1−14		18 42 08.2	−06 40 53	25.928	−0.985	
025.96−10.95	025.9−10.9	Na 2	19155−1111	19 18 19.6	−11 06 15	25.968	−10.956	CSI−11−19156
026.06−01.84	026.0−01.8	Pe 2−15		18 45 27.6	−06 56 57	26.066	−1.841	
026.34−02.27	026.3−02.2	Pe 1−16	18448−0657	18 47 32.3	−06 54 04	26.344	−2.279	

TABLE 1: continued

GPN	PN G (this work)	usual name (Acker et al.1992a, 1996)	IRAS	$\alpha$ (J2000.0)	$\delta$ (J2000.0)	$\ell$	$b$	remark(s) and other sources associated
026.48−02.82	026.5−03.0	Pe 1−19	18470−0705	18 49 44.6	−07 01 36	26.481	−2.823	
026.65−01.58	026.6−01.5	K 4−5	18429−0621	18 45 36.3	−06 18 35	26.652	−1.582	
027.34−02.11	027.3−02.1	Pe 1−18	18461−0559	18 48 46.5	−05 56 06	27.345	−2.113	
027.39−03.39	027.3−03.4	A 49		18 53 28.5	−06 28 33	27.393	−3.399	
027.48−03.50	027.4−03.5	Vy 1−4	18513−0630	18 54 01.9	−06 26 20	27.489	−3.506	
027.64−09.64	027.6−09.6	IC 4846	19137−0908	19 16 28.3	−09 02 37	27.647	−9.642	
027.67+04.26	027.6+04.2	M 2−43	18240−0244	18 26 40.0	−02 42 56	27.679	4.261	
027.70+00.70	027.7+00.7	M 2−45	18367−0422	18 39 21.9	−04 19 51	27.702	0.704	
028.03+10.26	028.0+10.2	WeSb 3	18034+0022	18 06 00.7	+00 22 39	28.039	10.268	[4]
028.25−04.02	028.2−04.0	Pe 1−20	18546−0604	18 57 17.4	−05 59 52	28.250	−4.028	
028.55+05.18	028.5+05.1	K 3−2	18224−0132	18 25 00.6	−01 30 54	28.557	5.181	
028.59+01.65	028.5+01.6	M 2−44	18349−0308	18 37 36.9	−03 05 56	28.597	1.657	
028.77+02.70	028.7+02.7	K 3−7	18316−0230	18 34 13.7	−02 27 36	28.777	2.701	
028.79−03.90	028.7−03.9	Pe 1−21	18551−0531	18 57 49.5	−05 27 39	28.791	−3.904	
029.07+00.45	029.0+00.4	A 48	18401−0316	18 42 46.9	−03 13 25	29.077	0.453	
029.21−00.07	029.2−00.0	TDC 1		18 44 53.6	−03 20 36	29.211	−0.070	
029.22−05.94	029.2−05.9	NGC 6751	19032−0604	19 05 55.5	−05 59 32	29.228	−5.942	HuLo 1
029.83−07.86	029.8−07.8	LSA 1		19 13 55.7	−06 18 52	29.837	−7.864	
030.67+06.27	030.6+06.2	Sh 2−68		18 24 58.5	+00 51 36	30.674	6.279	
030.89+03.46	030.8+03.4	A 47	18328−0016	18 35 22.6	−00 13 51	30.893	3.467	
031.03+04.12	031.0+04.1	K 3−6	18307+0009	18 33 17.5	+00 11 48	31.035	4.126	EM* RJHA 102
031.06−10.89	031.0−10.8	M 3−34	19243−0641	19 27 01.9	−06 35 04	31.065	−10.897	
031.26+05.96	031.2+05.9	K 3−3	18246+0112	18 27 09.3	+01 14 27	31.265	5.968	
031.32−00.53	031.3−00.5	HaTr 10		18 50 24.6	−01 40 18	31.327	−0.534	
031.72+01.73	031.7+01.7	PC 20	18404−0019	18 43 03.3	−00 16 37	31.729	1.739	[5]
031.90−00.30	031.9−00.3	WeSb 4		18 50 40.2	−01 03 12	31.907	−0.310	
032.01−03.03	032.0−03.0	K 3−18	18579−0216	19 00 34.8	−02 11 58	32.015	−3.036	
032.08−01.78	032.0−01.7	CBSS 2		18 56 15.8	−01 34 01	32.087	−1.788	[15]
032.54−03.21	032.5−03.2	K 3−20	18595−0153	19 02 10.1	−01 48 45	32.541	−3.214	
032.78−02.04	032.7−02.0	M 1−66	18558−0107	18 58 26.4	−01 03 45	32.784	−2.042	
032.91−02.86	032.9−02.8	K 3−19	18590−0123	19 01 36.5	−01 19 08	32.917	−2.864	
032.93−00.74	032.9−00.7	CBSS 3		18 54 06.8	−00 20 03	32.940	−0.748	
033.01−05.28	033.0−05.3	A 55	19078−0225	19 10 25.4	−02 20 21	33.011	−5.290	
033.15−06.38	033.1−06.3	NGC 6772	19119−0247	19 14 36.4	−02 42 25	33.159	−6.388	
033.28−01.90	033.2−01.9	Sa 3−151	18563−0037	18 58 51.8	−00 32 56	33.290	−1.903	PK 033−01 1
033.72−02.07	033.7−02.0	CBSS 1		19 00 16.1	−00 14 35	33.723	−2.076	
033.80−02.69	033.8−02.6	NGC 6741	19000−0031	19 02 37.0	−00 26 58	33.807	−2.692	
034.14−10.51	034.1−10.5	HDW 11		19 31 07.2	−03 42 33	34.145	−10.516	
034.57−11.74	034.5−11.7	PN 1933−0400	19336−0400	19 36 17.5	−03 53 26	34.576	−11.748	SS 441
034.59−06.72	034.5−06.7	NGC 6778	19158−0141	19 18 24.9	−01 35 47	34.590	−6.730	
035.13−00.76	035.1−00.7	Ap 2−1		18 58 10.4	+01 36 57	35.138	−0.761	
035.78−05.05	035.7−05.0	K 3−26	19120+0008	19 14 39.2	+00 13 37	35.788	−5.060	
036.16−57.11	036.1−57.1	NGC 7293	22267−2102	22 29 38.4	−20 50 14	36.161	−57.118	
037.60−05.16	037.5−05.1	A 58	19158+0141	19 18 20.6	+01 47 00	37.602	−5.164	[2]
037.76−34.57	037.7−34.5	NGC 7009	21014−1133	21 04 10.7	−11 21 48	37.762	−34.571	
037.89−06.30	037.8−06.3	NGC 6790		19 22 57.0	+01 30 47	37.894	−6.310	
038.11−25.46	038.1−25.4	A 70		20 31 33.2	−07 05 17	38.119	−25.463	
042.59−14.52	042.5−14.5	NGC 6852	19581+0135	20 00 39.2	+01 43 41	42.590	−14.528	
108.37−76.18	108.4−76.1	BoBn 1		0 37 16.1	−13 42 59	108.373	−76.186	
118.86−74.70	118.8−74.7	NGC 246	00445−1207	0 47 03.4	−11 52 19	118.865	−74.709	
205.87−26.73	205.8−26.7	MaC 2−1		5 03 41.8	−06 10 03	205.874	−26.731	
206.47−40.56	206.4−40.5	NGC 1535	04119−1251	4 14 15.8	−12 44 23	206.477	−40.564	
208.90−07.82	208.9−07.8	TaWe 1		6 16 15.4	−00 00 26	208.903	−7.824	
211.22−03.53	211.2−03.5	M 1−6	06331−0003	6 35 45.2	−00 05 37	211.225	−3.532	PK 211−03 1
214.96+07.81	214.9+07.8	A 20	07203+0151	7 22 57.6	+01 45 33	214.966	7.815	
215.21−24.28	215.2−24.2	IC 418	05251−1244	5 27 28.2	−12 41 51	215.212	−24.284	
215.57−30.85	215.5−30.8	A 7		5 03 07.5	−15 36 23	215.570	−30.855	
215.69+03.62	215.6+03.6	NGC 2346	07068−0043	7 09 22.5	−00 48 24	215.699	3.621	
216.04−00.24	216.0−00.2	A 18		6 56 14.5	−02 53 09	216.048	−0.248	
216.30−04.48	216.3−04.4	We 1−5		6 41 34.6	−05 02 35	216.307	−4.486	
217.04−00.05	217.0−00.0	MaC 1−1	06562−0337	6 58 44.3	−03 41 11	217.044	−0.059	PK 217−00 1, [FT96] 217.0−0.1
217.43+02.01	217.4+02.0	St 3−1	07043−0300	7 06 50.9	−03 05 09	217.437	2.015	[9]
218.98−10.77	218.9−10.7	HDW 5	06212−1011	6 23 37.0	−10 13 25	218.987	−10.777	
220.36−53.93	220.3−53.9	NGC 1360	03311−2601	3 33 14.7	−25 52 19	220.364	−53.933	
221.32−12.39	221.3−12.3	IC 2165	06194−1257	6 21 42.7	−12 59 14	221.324	−12.394	
221.74+05.31	221.7+05.3	M 3−3		7 26 34.2	−05 21 52	221.744	5.317	
222.84−04.27	222.8−04.2	GLMP 160	06518−1041	6 54 13.4	−10 45 39	222.841	−4.273	
224.39+15.31	224.3+15.3	K 1−13		8 06 46.5	−02 52 36	224.395	15.312	[10], PK 224+15
224.94+01.06	224.9+01.0	We 1−6		7 17 26.0	−10 10 38	224.942	1.065	[SPW92] III−57
226.42−03.74	226.4−03.7	PB 1	07004−1338	7 02 46.8	−13 42 35	226.426	−3.744	
226.80+05.62	226.7+05.6	M 1−16	07349−0932	7 37 18.9	−09 38 50	226.800	5.627	
228.21−22.14	228.2−22.1	DeHt 1		5 55 07.1	−22 54 01	228.214	−22.141	
228.51−11.46	228.5−11.4	KeWe 2		6 37 39.3	−18 57 30	228.512	−11.463	[12], KW 6, KW 2
228.83+05.36	228.8+05.3	M 1−17	07380−1125	7 40 22.2	−11 32 30	228.830	5.367	
229.62−02.76	229.6−02.7	K 1−10		7 12 25.7	−16 05 51	229.621	−2.764	
231.49+04.35	231.4+04.3	M 1−18		7 42 04.2	−14 21 18	231.497	4.352	
231.80+04.11	231.8+04.1	NGC 2438	07395−1437	7 41 50.4	−14 44 08	231.801	4.117	
232.01+05.72	232.0+05.7	SaSt 2−3		7 48 03.7	−14 07 40	232.019	5.726	
232.41−01.85	232.4−01.8	M 1−13	07190−1802	7 21 14.9	−18 08 38	232.415	−1.851	
232.83−04.72	232.8−04.7	M 1−11	07090−1946	7 11 16.7	−19 51 03	232.837	−4.730	
233.03−10.18	233.0−10.1	SaWe 1		6 50 40.7	−22 26 10	233.033	−10.181	
233.53−16.31	233.5−16.3	A 15	06249−2520	6 27 02.0	−25 22 50	233.533	−16.314	
234.34−06.61	234.3−06.6	K 2−3		7 06 57.6	−22 02 25	234.340	−6.620	
234.83+02.42	234.8+02.4	NGC 2440	07396−1805	7 41 55.3	−18 12 33	234.838	2.421	
234.99−01.44	234.9−01.4	M 1−14	07257−2007	7 27 56.5	−20 13 23	234.995	−1.442	
235.38−03.92	235.3−03.9	M 1−12	07172−2138	7 19 21.5	−21 43 55	235.383	−3.920	
236.13−10.68	236.0−10.6	HaWe 9		6 54 20.8	−25 24 33	236.132	−10.687	

TABLE 1: continued

GPN	PN G (this work)	usual name (Acker et al.1992a, 1996)	IRAS	$\alpha$ (J2000.0)	$\delta$ (J2000.0)	$\ell$	$b$	remark(s) and other sources associated
236.76+03.56	236.7+03.5	K 1—12		7 50 11.5	−19 18 16	236.768	3.568	
238.02+34.86	238.0+34.8	A 33		9 39 09.2	−02 48 32	238.023	34.865	
238.42−01.87	238.4−01.8	KeWe 3		7 33 25.2	−23 26 21	238.428	−1.870	[12], KW 8, KW 3
238.98+07.34	238.9+07.3	Sa 2—21		8 08 44.4	−19 14 02	238.989	7.347	
239.62+13.94	239.6+13.9	NGC 2610	08310—1558	8 33 23.3	−16 08 58	239.629	13.948	
239.65−12.07	239.6−12.0	ESO 427—19		6 55 12.2	−29 07 29	239.654	−12.073	
240.33+07.04	240.3+07.0	Y—C 2—5	08084—2022	8 10 41.6	−20 31 32	240.337	7.045	
240.36−07.62	240.3−07.6	M 3—2		7 14 49.8	−27 50 23	240.370	−7.629	
241.09+02.35	241.0+02.3	M 3—4	07530—2330	7 55 11.5	−23 38 13	241.092	2.354	
242.64−11.60	242.6−11.6	M 3—1	07009—3131	7 02 49.8	−31 35 28	242.645	−11.607	
243.37−01.03	243.3−01.0	NGC 2452	07453—2712	7 47 26.1	−27 20 08	243.380	−1.039	
243.83−37.10	243.8−37.1	PR1M 1	05013—3949	5 03 01.7	−39 45 45	243.833	−37.109	PK 243—37
244.60+12.56	244.5+12.5	A 29		8 40 18.9	−20 54 36	244.603	12.564	
245.41+01.62	245.4+01.6	M 3—5	08004—2733	8 02 28.9	−27 41 55	245.416	1.629	
248.70+29.53	248.7+29.5	A 34		9 45 35.3	−13 10 16	248.708	29.540	[6]
248.86−08.56	248.8−08.5	M 4—2	07270—3539	7 28 53.6	−35 45 15	248.861	−8.564	
249.07+06.96	249.0+06.9	SaSt 1—1	08296—2735	8 31 42.8	−27 45 32	249.078	6.968	
249.38−05.50	249.3−05.4	A 23		7 43 18.3	−34 45 12	249.383	−5.500	
250.37+00.15	250.3+00.1	A 26	08070—3231	8 09 01.5	−32 40 22	250.372	0.152	
251.15+00.72	251.1+00.7	CSST 1		8 13 21.1	−33 01 04	251.158	0.723	
251.17−01.54	251.1−01.5	K 1—21		8 04 14.5	−34 15 58	251.177	−1.547	
251.98−03.75	251.9−03.7	CSST 2		7 57 06.5	−36 06 51	251.984	−3.758	EQ 0755—3558
252.63+04.45	252.6+04.4	K 1—1		8 31 52.5	−32 06 09	252.635	4.450	
253.57+10.77	253.5+10.7	K 1—2	08556—2846	8 57 45.9	−28 57 37	253.577	10.779	
253.97+05.77	253.9+05.7	M 3—6	08386—3211	8 40 40.2	−32 22 34	253.971	5.778	ESO 432—1
254.67+00.21	254.6+00.2	Ns 238	08189—3602	8 20 52.9	−36 12 52	254.674	0.216	[12]
255.32−03.64	255.3−03.6	Wray 15—158	08046—3844	8 06 28.3	−38 53 25	255.328	−3.642	
255.32−59.61	255.3−59.6	Lo 1		2 56 58.4	−44 10 20	255.322	−59.620	
255.71+03.31	255.7+03.3	Wray 16—22		8 36 16.3	−35 15 04	255.717	3.314	
257.17−02.60	257.1−02.6	Vo 2		8 16 10.0	−39 51 51	257.170	−2.604	
257.52+00.63	257.5+00.6	VBR1 1		8 30 53.8	−38 18 05	257.529	0.634	
257.82−05.41	257.8−05.4	KeWe 4		8 05 33.6	−41 56 18	257.822	−5.414	[12], KW 9, KW 4
258.06−15.74	258.0−15.7	Wray 17—1	07133—4652	7 14 49.3	−46 57 38	258.068	−15.748	
258.13−00.39	258.1−00.3	He 2—9	08266—3913	8 28 28.0	−39 23 40	258.136	−0.391	
259.15+00.94	259.1+00.9	He 2—11		8 37 08.3	−39 25 09	259.151	0.941	
260.15+00.24	260.7+00.9	Vo 3	08355—4027	8 37 24.5	−40 38 08	260.152	0.248	[12], PN G260.1+00.2, BRAN 163
260.73−03.33	260.7−03.3	Wray 16—20		8 23 40.7	−43 12 45	260.732	−3.333	
261.05+32.04	261.0+32.0	NGC 3242	10223—1823	10 24 46.1	−18 38 33	261.051	32.050	
261.61+03.00	261.6+03.0	He 2—15	08516—3952	8 53 30.7	−40 03 44	261.615	3.005	
261.98+08.58	261.9+08.5	NGC 2818	09140—3625	9 16 01.4	−36 37 38	261.982	8.584	
262.65−04.61	262.6−04.6	Wray 17—18		8 23 53.8	−45 31 10	262.652	−4.619	
263.04−05.57	263.0−05.5	PB 2	08190—4613	8 20 40.1	−46 22 59	263.048	−5.571	
263.22+00.49	263.2+00.4	K 2—15	08470—4243	8 48 38.9	−42 53 55	263.226	0.498	PK 263+00 1
263.32−08.86	263.3−08.8	ESO 209—15		8 05 11.0	−48 23 32	263.322	−8.861	
264.16−08.14	264.1−08.1	He 2—7	08100—4834	8 11 31.8	−48 43 17	264.165	−8.143	
264.41−12.77	264.4−12.7	He 2—5	07460—5107	7 47 20.1	−51 15 04	264.411	−12.774	
264.44−03.64	264.4−03.6	Wray 17—20		8 34 27.9	−46 24 21	264.448	−3.644	
265.11−04.21	265.1−04.2	ESO 259—10		8 34 06.7	−47 16 38	265.114	−4.211	
265.15−02.22	265.1−02.2	Ve 26	08417—4555	8 43 28.0	−46 06 41	265.159	−2.229	Ve 7—26
265.75+04.10	265.7+04.1	NGC 2792	09105—4213	9 12 26.5	−42 25 41	265.752	4.101	
268.42+02.48	268.4+02.4	PB 5	09143—4516	9 16 09.6	−45 28 43	268.426	2.480	
269.73−03.61	269.7−03.6	PB 3	08527—5020	8 54 18.3	−50 32 23	269.738	−3.619	
270.11−02.95	270.1−02.9	GLMP 236	08574—5011	8 59 02.9	−50 23 40	270.117	−2.950	
270.16+24.83	270.1+24.8	K 1—28		10 34 30.7	−29 11 15	270.169	24.836	
270.74−02.43	270.7−02.4	GLMP 239	09024—5019	9 04 05.3	−50 31 08	270.741	−2.430	
272.11+12.39	272.1+12.3	NGC 3132		10 07 01.7	−40 26 12	272.114	12.397	
272.40−05.96	272.4−05.9	MeWe 1—1		8 53 36.8	−54 05 09	272.406	−5.969	[12], BRAN 199, [FG85] 238, ESO 165—6
273.29−03.78	273.2−03.7	He 2—18	09071—5307	9 08 40.1	−53 19 14	273.296	−3.787	
273.67+06.19	273.6+06.1	HBDS 1		9 52 44.5	−46 16 49	273.672	6.192	
274.18+02.57	274.1+02.5	He 2—34	09394—4909	9 41 13.9	−49 22 48	274.189	2.576	
274.30+09.11	274.3+09.1	Lo 4		10 05 45.8	−44 21 34	274.310	9.112	
274.62+02.17	274.6+02.1	He 2—35	09398—4944	9 41 37.5	−49 57 59	274.623	2.176	
274.69+03.54	274.6+03.5	He 2—37	09455—4844	9 47 24.8	−48 58 16	274.693	3.544	
275.08−04.16	275.0−04.1	PB 4	09136—5440	9 15 07.8	−54 52 44	275.085	−4.161	
275.21−03.70	275.2−03.7	He 2—25	09164—5426	9 18 01.4	−54 39 29	275.216	−3.708	
275.28−02.93	275.2−02.9	He 2—28	09205—5356	9 22 06.9	−54 09 39	275.282	−2.935	
275.39−04.69	275.3−04.7	He 2—21	09123—5515	9 13 52.9	−55 28 18	275.392	−4.699	
275.51−01.32	275.5−01.3	Pe 2—4	09291—5256	9 30 48.4	−53 09 59	275.518	−1.325	
275.86−02.97	275.8−02.9	He 2—29	09231—5423	9 24 45.9	−54 36 15	275.869	−2.980	
275.89−01.01	275.9−01.0	NeVe GN09.32.3		9 34 04.1	−53 12 01	275.899	−1.018	
277.15−01.57	277.1−01.5	GLMP 254	09362—5413	9 37 51.7	−54 27 08	277.154	−1.572	
277.15−03.83	277.1−03.8	NGC 2899	09255—5553	9 27 03.4	−56 06 20	277.150	−3.830	
277.71−03.55	277.7−03.5	Wray 17—31		9 31 20.6	−56 17 40	277.714	−3.556	
278.15−05.93	278.1−05.9	NGC 2867	09200—5805	9 21 25.6	−58 18 40	278.159	−5.936	
278.57−04.55	278.5−04.5	He 2—32	09294—5723	9 30 55.6	−57 36 54	278.578	−4.558	
278.61−06.74	278.6−06.7	He 2—26	09181—5859	9 19 27.6	−59 12 01	278.617	−6.741	
278.85+04.99	278.8+04.9	PB 6	10113—5005	10 13 16.0	−50 19 57	278.856	4.997	
279.15−00.44	279.1−00.4		09517—5438	9 53 27.1	−54 52 39	279.151	−0.443	
279.60−03.18	279.6−03.1	He 2—36	09418—5703	9 43 25.8	−57 16 54	279.608	−3.186	
280.00+02.98	280.0+02.9	Ste 2—1	10100—5223	10 11 57.6	−52 38 17	280.006	2.986	
280.57+01.80	280.5+01.8	KeWe 1		10 10 33.7	−53 55 53	280.576	1.807	[12], BRAN 292, KW 11
281.01−05.69	281.0−05.6	IC 2501	09373—5951	9 38 47.4	−60 05 30	281.011	−5.696	
281.18−00.48	281.1−00.4	GLMP 263	10029—5553	10 04 40.4	−56 08 34	281.181	−0.481	
282.60−00.42	282.6−00.4	GLMP 268	10115—5640	10 13 19.8	−56 55 35	282.608	−0.429	
282.96+03.81	282.9+03.8	He 2—48		10 31 32.0	−53 32 28	282.970	3.819	
283.39+03.90	283.3+03.9	He 2—50	10323—5325	10 34 18.9	−53 41 03	283.399	3.905	
283.67+25.31	283.6+25.3	K 1—22	11242—3405	11 26 44.2	−34 22 13	283.674	25.314	

TABLE 1: continued

GPN	PN G (this work)	usual name (Acker et al.1992a, 1996)	IRAS	$\alpha$ (J2000.0)	$\delta$ (J2000.0)	$\ell$	$b$	remark(s) and other sources associated
283.81−04.23	283.8−04.2	He 2−39	10022−6029	10 03 49.3	−60 43 48	283.818	−4.238	
283.89+02.26	283.8+02.2	My 60	10296−5505	10 31 33.4	−55 20 51	283.897	2.268	
283.90+09.72	283.9+09.7	ESO 215−04		10 54 40.6	−48 47 04	283.904	9.726	
283.94−01.85	283.9−01.8	Hf 4	10138−5836	10 15 35.4	−58 51 10	283.941	−1.851	
285.11−02.71	285.1−02.7	Hen 3−401	10178−5958	10 19 32.6	−60 13 30	285.120	−2.716	SS73 21
285.45+01.50	285.4+01.5	Pe 2−7	10364−5631	10 38 27.7	−56 47 07	285.450	1.504	
285.46−01.11	285.4−01.1	Pe 2−5		10 28 34.6	−59 03 24	285.461	−1.119	
285.46−05.37	285.4−05.3	IC 2553	10077−6222	10 09 20.9	−62 36 50	285.463	−5.376	
285.49+02.24	285.4+02.2	Pe 1−1	10393−5553	10 41 19.6	−56 09 16	285.492	2.247	
285.66−02.74	285.6−02.7	He 2−47	10214−6017	10 23 09.3	−60 32 42	285.669	−2.743	
285.73+01.29	285.7+01.2	Pe 1−2	10375−5650	10 39 32.8	−57 06 15	285.735	1.297	PK 285+01 2
285.79−14.95	285.7−14.9	IC 2448	09066−6944	9 07 06.6	−69 56 31	285.799	−14.951	
286.04−06.55	286.0−06.5	He 2−41	10059−6339	10 07 23.9	−63 54 31	286.044	−6.555	
286.27−06.95	286.2−06.9	Wary 17−40	10055−6407	10 06 58.8	−64 21 57	286.278	−6.951	PK 286−06 2, BRAN 286, ESO 92−10
286.30−04.86	286.3−04.8	NGC 3211	10162−6225	10 17 50.5	−62 40 14	286.301	−4.868	
286.35+02.81	286.3+02.8	He 2−55	10466−5547	10 48 43.2	−56 03 10	286.357	2.818	
286.52+11.79	286.5+11.6	Lo 5	11116−4740	11 13 54.3	−47 57 01	286.524	11.790	
286.87−29.57	286.8−29.5	K 1−27	05587−7540	5 57 02.5	−75 40 22	286.877	−29.576	
288.44+00.38	288.4+00.3	Hf 38	10525−5853	10 54 35.6	−59 09 47	288.445	0.382	
288.46−02.40	288.4−02.4	Pe 1−3		10 44 31.4	−61 39 39	288.463	−2.407	
288.73+08.11	288.7+08.1	ESO 216−02		11 18 09.7	−52 10 02	288.735	8.115	[1]
288.87−05.21	288.8−05.2	He 2−51	10340−6403	10 35 45.9	−64 19 11	288.879	−5.215	RX J1035.8−6418
288.93−00.80	288.9−00.8	Hf 39	10520−6010	10 53 59.7	−60 26 44	288.935	−0.805	LS 2015
289.60−01.61	289.6−01.6	He 2−57		10 56 03.1	−61 28 07	289.603	−1.619	SPH 112
289.81+07.77	289.8+07.7	He 2−63		11 24 01.0	−52 51 20	289.819	7.776	
290.11−00.43	290.1−00.4	Hf 48		11 03 56.3	−60 36 04	290.111	−0.433	
290.50+07.92	290.5+07.9	Fg 1	11262−5239	11 28 36.2	−52 56 05	290.505	7.927	
290.71+00.19	290.7+00.2	PhJa 1		11 10 25.2	−60 15 43	290.714	0.191	
291.37−26.29	291.3−26.2	Vo 1	07027−7934	6 59 26.7	−79 38 47	291.375	−26.294	
291.43+19.25	291.4+19.2	ESO 320−28		11 52 29.2	−42 17 40	291.434	19.257	
291.64−04.84	291.6−04.8	IC 2621	10583−6458	11 00 20.2	−65 14 58	291.640	−4.843	
291.74+03.73	291.7+03.7	He 2−64		11 27 24.3	−57 17 59	291.740	3.735	
292.44+04.16	292.4+04.1	PB 8	11309−5649	11 33 17.9	−57 06 15	292.441	4.167	
292.65+01.23	292.6+01.2	NGC 3699	11256−5940	11 27 56.9	−59 57 23	292.654	1.239	
292.80+01.12	292.8+01.1	He 2−67	11265−5950	11 28 47.4	−60 06 37	292.803	1.126	
293.61+01.20	293.6+01.2	He 2−70	11328−6000	11 35 11.0	−60 17 02	293.612	1.201	
293.61+10.96	293.6+10.9	BLDz 1	11506−5034	11 53 06.7	−50 50 57	293.614	10.964	
294.11+43.62	294.1+43.6	NGC 4361	12219−1830	12 24 30.8	−18 47 05	294.114	43.626	
294.13+14.45	294.1+14.4	Lo 6		12 00 43.0	−47 33 11	294.132	14.450	ESO 267−7
294.68+04.70	294.6+04.7	NGC 3918	11478−5654	11 50 17.9	−57 10 57	294.690	4.708	
294.93−04.34	294.9−04.3	He 2−68	11295−6541	11 31 45.7	−65 58 14	294.934	−4.344	
294.96−00.69	294.9−00.6	He 2−72		11 41 38.0	−62 28 54	294.967	−0.694	
295.32−09.35	295.3−09.3	He 2−62	11157−7033	11 17 43.4	−70 49 32	295.327	−9.351	
296.39−03.07	296.3−03.0	He 2−73	11462−6451	11 48 38.4	−65 08 37	296.391	−3.072	
296.46−06.90	296.4−06.9	He 2−71	11369−6835	11 39 11.4	−68 52 09	296.467	−6.909	
296.62−20.04	296.6−20.0	NGC 3195	10099−8036	10 09 21.3	−80 51 32	296.624	−20.042	
297.45+03.71	297.4+03.7	He 2−78	12065−5825	12 09 10.1	−58 42 38	297.455	3.711	
298.01+34.88	298.0+34.8	CTIO 1230−275		12 33 13.0	−27 48 53	298.020	34.883	
298.18−00.78	298.1−00.7	He 2−77	12063−6259	12 09 01.3	−63 16 02	298.183	−0.787	GAL 298.19−00.78
298.27−01.72	298.2−01.7	He 2−76	12057−6355	12 08 26.0	−64 12 09	298.273	−1.720	
298.30+06.67	298.3+06.6	Po 1		12 18 32.7	−55 54 05	298.301	6.674	
298.39−04.85	298.3−04.8	NGC 4071	12016−6701	12 04 15.6	−67 18 37	298.393	−4.855	
298.76+13.26	298.7+13.2	PM 1−66	12238−4907	12 26 30.5	−49 24 05	298.770	13.269	
299.05+18.47	299.0+18.4	K 1−23		12 30 52.4	−44 14 17	299.051	18.479	Lu YC 1228−43
299.49−04.12	299.4−04.1	HaTr 1		12 16 33.3	−66 46 05	299.494	−4.129	
299.51+02.46	299.5+02.4	He 2−82		12 23 53.8	−60 13 14	299.515	2.468	
299.82−01.32	299.8−01.3	He 2−81		12 23 01.5	−64 01 47	299.827	−1.329	
300.27+00.66	300.2+00.6	He 2−83	12259−6148	12 28 44.2	−62 05 34	300.279	0.662	
300.42−00.98	300.4−00.9	He 2−84		12 28 47.0	−63 44 37	300.429	−0.982	
300.58−01.10	300.5−01.1	He 2−85	12272−6336	12 30 07.7	−63 53 00	300.589	−1.109	
300.71−02.08	300.7−02.0	He 2−86	12276−6435	12 30 30.6	−64 52 06	300.711	−2.087	
300.81−03.45	300.8−03.4	ESO 095−12	12275−6557	12 30 24.7	−66 14 22	300.813	−3.454	
301.10−01.49	301.1−01.4	GLMP 328	12316−6401	12 34 36.2	−64 18 17	301.108	−1.493	
302.24+02.52	302.2+02.5	Wray 16−120	12429−6003	12 45 55.0	−60 20 22	302.248	2.525	
302.32−01.29	302.3−01.3	DuRe 1		12 45 51.5	−64 09 38	302.324	−1.295	
302.61−00.96	302.6−00.9	Wray 16−121		12 48 32.7	−63 49 53	302.613	−0.961	
303.56+39.99	303.6+40.0	A 35		12 53 32.9	−22 52 22	303.567	39.996	
304.20+05.95	304.2+05.9	Wray 16−122	12577−5637	13 00 41.3	−56 53 41	304.202	5.954	
304.58−04.82	304.5−04.8	IC 4191	13054−6722	13 08 47.6	−67 38 37	304.587	−4.828	
304.86+05.16	304.8+05.1	He 2−88		13 05 48.3	−57 39 25	304.860	5.161	
305.11+01.46	305.1+01.4	He 2−90	13064−6103	13 09 36.4	−61 19 36	305.110	1.468	
305.61−13.12	305.6−13.1	ESO 040−11	13299−7531	13 34 14.7	−75 46 30	305.618	−13.127	
305.76−03.43	305.7−03.4	Wray 17−59	13160−6553	13 19 30.2	−66 09 08	305.768	−3.435	
306.41−00.68	306.4−00.6	Th 2−A	13192−6305	13 22 34.2	−63 21 02	306.415	−0.690	
307.20−03.45	307.2−03.4	NGC 5189	13300−6543	13 33 33.0	−65 58 27	307.206	−3.453	
307.23−09.06	307.2−09.0	He 2−97	13413−7113	13 45 22.7	−71 28 55	307.233	−9.062	
307.35+05.06	307.3+05.0	Wray 16−128	13212−5715	13 24 22.0	−57 31 17	307.359	5.067	
307.54−04.94	307.5−04.9	MyCn 18	13359−6707	13 39 35.3	−67 22 51	307.550	−4.942	
307.57−03.68	307.5−03.6	WeK 1		13 37 32.4	−66 08 38	307.577	−3.689	[16]
308.26+07.79	308.2+07.7	MeWe 1−3		13 28 05.0	−54 41 59	308.260	7.792	
308.46+00.43	308.4+00.4	WeK 2		13 38 42.4	−61 55 45	308.462	0.434	[17]
308.53−03.50	308.5−03.5	GLMP 362	13427−6531	13 46 25.8	−65 46 23	308.539	−3.502	
308.65−12.28	308.6−12.2	He 2−105	14107−7358	14 15 24.9	−74 12 46	308.657	−12.282	
309.00−04.24	309.0−04.2	He 2−99	13487−6608	13 52 30.8	−66 23 26	309.003	−4.241	
309.02+00.89	309.0+00.8	He 2−96	13391−6107	13 42 36.2	−61 22 28	309.022	0.891	
309.11−04.39	309.1−04.3	NGC 5315	13501−6616	13 53 57.0	−66 30 50	309.113	−4.395	
309.29+01.39	309.2+01.3	VBRC 5		13 43 59.5	−60 49 44	309.295	1.392	

TABLE 1: continued

GPN	PN G (this work)	usual name (Acker et al.1992a, 1996)	IRAS	$\alpha$ (J2000.0)	$\delta$ (J2000.0)	$\ell$	$b$	remark(s) and other sources associated
309.53−02.93	309.5−02.9	MaC 1−2	13507−6444	13 54 27.1	−64 59 35	309.531	−2.932	[1]
310.38+24.77	310.3+24.7	Lo 8		13 25 37.5	−37 36 15	310.383	24.772	AM 1322−372
310.47+01.39	310.4+01.3	Vo 4	13499−6019	13 53 23.2	−60 33 48	310.475	1.398	
310.62+01.47	310.6+01.4	WeKG 3		13 54 25.6	−60 27 20	310.625	1.472	[18]
310.75−02.94	310.7−02.9	He 2−103		14 05 36.9	−64 41 00	310.759	−2.945	
310.84−05.95	310.8−05.9	LoTr 7		14 15 24.3	−67 31 54	310.844	−5.959	
311.04+02.47	311.0+02.4	SuWt 2		13 55 43.3	−59 22 39	311.046	2.478	
311.17+03.39	311.1+03.4	He 2−101	13515−5812	13 54 55.7	−58 27 17	311.173	3.397	
311.17−06.07	311.1−06.0	PM 1−80	14150−6718	14 19 07.5	−67 32 12	311.180	−6.080	
311.47+02.85	311.4+02.8	He 2−102	13547−5839	13 58 13.9	−58 54 32	311.476	2.850	
312.36+10.57	312.3+10.5	NGC 5307	13478−5057	13 51 03.2	−51 12 21	312.367	10.571	
312.61−01.90	312.6−01.8	He 2−107	14149−6253	14 18 43.6	−63 07 10	312.613	−1.900	
313.30+01.13	313.3+01.1	GLMP 377	14122−5947	14 15 53.7	−60 01 38	313.302	1.133	
313.78+02.17	313.7+02.1	PM 1−79	14132−5839	14 16 51.9	−58 53 11	313.787	2.173	
313.89−12.61	313.8−12.6	LoTr 11		15 21 10.6	−72 13 26	313.895	−12.619	
314.41+02.21	314.4+02.2	GLMP 381	14177−5824	14 21 19.8	−58 38 23	314.415	2.213	
315.03−00.37	315.0−00.3	He 2−111	14295−6036	14 33 18.3	−60 49 38	315.031	−0.371	
315.10−13.08	315.1−13.0	He 2−131	15318−7144	15 37 11.4	−71 54 53	315.108	−13.081	
315.43+05.22	315.4+05.2	He 2−109		14 20 49.0	−55 27 59	315.431	5.221	
315.47+09.46	315.4+09.4	He 2−104	14085−5112	14 11 52.0	−51 26 24	315.479	9.462	
315.71−01.21	315.7−01.2	LoTr 9		14 41 18.1	−61 19 58	315.718	−1.219	[7]
315.73+05.56	315.7+05.5	LoTr 8		14 21 59.9	−55 02 17	315.737	5.566	
316.16+08.45	316.1+08.4	He 2−108	14147−5156	14 18 08.7	−52 10 40	316.170	8.451	
316.24+00.88	316.2+00.8	GLMP 387	14345−5858	14 38 20.4	−59 11 46	316.248	0.883	
316.31−01.37	316.3−01.3	LoTr 10		14 46 20.5	−61 13 33	316.313	−1.375	
317.13−05.71	317.1−05.7	He 2−119	15064−6429	15 10 41.0	−64 40 25	317.139	−5.715	FEST 1−283
317.84+03.39	317.8+03.3	VBRC 6	14379−5602	14 41 36.2	−56 15 14	317.843	3.395	
318.35−02.57	318.3−02.5	He 2−116	15020−6109	15 06 01.6	−61 21 18	318.351	−2.580	
318.38−02.06	318.3−02.0	He 2−114	15000−6041	15 04 08.5	−60 53 24	318.381	−2.063	
318.43−03.06	318.4−03.0	ESO 135−04	15047−6133	15 08 43.1	−61 44 09	318.440	−3.070	
318.46+41.49	318.4+41.4	A 36	13379−1938	13 40 41.3	−19 52 55	318.463	41.500	IRAS F13378−1937
319.21+06.80	319.2+06.8	He 2−112	14370−5222	14 40 30.9	−52 34 57	319.214	6.807	
319.68+15.74	319.6+15.7	IC 4406	14192−4355	14 22 26.2	−44 09 03	319.687	15.740	
320.13−09.65	320.1−09.6	He 2−138	15513−6600	15 56 01.8	−66 09 08	320.135	−9.658	
320.33−28.88	320.3−28.8	He 2−434	19275−7439	19 33 49.6	−74 32 58	320.334	−28.889	JL 22
320.90−00.29	320.9−00.2		15103−5754	15 14 18.6	−58 05 21	320.907	−0.293	
320.99+02.09	320.9+02.0	He 2−117	15022−5547	15 05 59.3	−55 59 16	320.995	2.092	
321.00−03.85	321.0−03.8	HaTr 2	15261−6051	15 30 18.7	−61 01 38	321.006	−3.860	
321.01+08.39	321.0+08.3	MeWe 1−5		14 46 35.2	−50 23 27	321.012	8.395	AM 1442−501
321.04+03.98	321.0+03.9	He 2−113	14562−5406	14 59 53.5	−54 18 08	321.048	3.988	
321.30+02.83	321.3+02.8	He 2−115	15015−5459	15 05 16.8	−55 11 11	321.303	2.839	
321.30−16.78	321.3−16.7	He 2−185	16557−7001	17 01 17.3	−70 06 03	321.307	−16.781	
321.88+01.95	321.8+01.9	He 2−120	15081−5528	15 11 56.4	−55 39 48	321.881	1.952	
322.17−06.60	322.1−06.6	He 2−136	15478−6221	15 52 10.7	−62 30 47	322.177	−6.603	
322.46−00.17	322.4−00.1	Pe 2−8	15198−5658	15 23 42.9	−57 09 25	322.469	−0.178	
322.49−02.61	322.4−02.6	Mz 1	15302−5859	15 34 16.8	−59 09 08	322.492	−2.611	
322.58−05.26	322.5−05.2	NGC 5979	15434−6103	15 47 41.4	−61 13 04	322.581	−5.263	
323.12−02.56	323.1−02.5	He 2−132	15339−5834	15 38 01.2	−58 44 43	323.122	−2.565	IRSV 1534−5836
323.95+02.45	323.9+02.4	He 2−123	15186−5357	15 22 19.4	−54 08 12	323.957	2.458	
324.08+03.53	324.0+03.5	PM 1−89		15 19 08.7	−53 09 51	324.086	3.531	
324.16+09.07	324.1+09.0	ESO 223−10	14582−4809	15 01 40.8	−48 21 03	324.167	9.077	
324.26+02.58	324.2+02.5	He 2−125	15198−5340	15 23 36.3	−53 51 28	324.267	2.589	
324.82−01.16	324.8−01.1	He 2−133	15380−5626	15 41 58.9	−56 36 26	324.825	−1.166	HD 139636
325.06+03.27	325.0+03.2	He 2−129	15218−5240	15 25 32.6	−52 50 38	325.069	3.274	
325.49−04.00	325.4−04.0	He 2−141	15550−5815	15 59 08.9	−58 23 55	325.496	−4.007	
325.82−12.82	325.8−12.8	He 2−182	16498−6409	16 54 35.2	−64 14 28	325.825	−12.821	
325.85+04.56	325.8+04.5	He 2−128	15214−5109	15 25 07.9	−51 19 42	325.860	4.570	
326.05−06.54	326.0−06.5	He 2−151	16114−5946	16 15 42.4	−59 54 00	326.053	−6.547	
326.14−01.94	326.1−01.9	Vbe 3	15489−5615	15 52 59.2	−56 24 27	326.141	−1.949	
326.41+06.99	326.4+07.0	NeVe GN15.16.2	15162−4849	15 19 44.0	−48 59 55	326.415	6.993	
326.72+00.61	326.7+00.6	Wray 16−185	15411−5352	15 44 59.3	−54 02 04	326.726	0.618	PK 326+00
326.76+42.24	326.7+42.2	IC 972		14 04 26.0	−17 13 40	326.761	42.241	
326.96+02.22	326.9+02.2	GLMP 419	15359−5226	15 39 42.9	−52 36 32	326.960	2.230	
327.14−01.86	327.1−01.8	He 2−140	15541−5533	15 58 08.3	−55 41 50	327.149	−1.864	
327.19−02.20	327.1−02.2	He 2−142	15559−5546	15 59 57.7	−55 55 33	327.195	−2.205	
327.57+13.33	327.5+13.3	He 2−118	15029−4248	15 06 13.7	−42 59 57	327.578	13.330	ESO 273−17
327.72−05.49	327.7−05.4	KoRe 1		16 19 10.5	−57 58 55	327.725	−5.491	
327.81+10.07	327.8+10.0	NGC 5882	15134−4527	15 16 50.0	−45 38 59	327.818	10.080	
327.82−07.27	327.8−07.2	He 2−163	16252−5902	16 29 31.2	−59 09 24	327.823	−7.277	
327.84−01.67	327.8−01.6	He 2−143	15570−5457	16 00 59.3	−55 05 40	327.849	−1.671	
327.88−06.13	327.8−06.1	He 2−158	16193−5812	16 23 30.7	−58 19 23	327.887	−6.137	
327.91−04.29	327.9−04.3	He 2−147	16099−6651	16 14 01.1	−56 59 27	327.920	−4.297	
328.07−01.59	328.0−01.6	GLMP 444	15579−5445	16 01 50.2	−54 53 36	328.073	−1.599	
328.20+01.40	328.2+01.3	Lo 10		15 49 28.7	−52 30 09	328.201	1.408	
328.39−02.84	328.4−02.8	GLMP 448	16053−5528	16 09 20.2	−55 36 11	328.396	−2.841	
328.97−02.49	328.9−02.4	He 2−146	16067−5449	16 10 41.2	−54 57 33	328.974	−2.498	
329.07+01.95	329.0+01.9	Sp 1	15479−5122	15 51 40.9	−51 31 28	329.079	1.957	IRSV 1548−5120
329.38−02.87	329.3−02.8	Mz 2	16105−5449	16 14 32.5	−54 57 03	329.384	−2.872	
329.47−02.74	329.4−02.7	He 2−149	16104−5440	16 14 24.3	−54 47 39	329.478	−2.745	
329.54+01.75	329.5+01.7	VBRC 7		15 54 49.8	−51 23 04	329.547	1.754	
329.56−02.27	329.5−02.2	Wray 17−75	16086−5415	16 12 34.6	−54 23 40	329.560	−2.272	
330.25+05.92	330.2+05.9	Lo 9		15 42 13.2	−47 40 45	330.255	5.926	
330.63−03.61	330.6−03.6	He 2−159	16203−5429	16 24 21.4	−54 36 04	330.638	−3.617	
330.64−02.12	330.6−02.1	He 2−153		16 17 13.9	−53 32 07	330.649	−2.124	
330.77+04.15	330.7+04.1	Cn 1−1	15476−4836	15 51 16.0	−48 44 59	330.779	4.153	
330.98+04.39	330.9+04.3	Wray 16−189		15 51 19.9	−48 26 05	330.986	4.391	
331.03+01.20	331.0+01.2		16005−5041	16 04 16.2	−50 49 53	331.032	1.209	

TABLE 1: continued

GPN	PN G (this work)	usual name (Acker et al.1992a, 1996)	IRAS	$\alpha$ (J2000.0)	$\delta$ (J2000.0)	$\ell$	$b$	remark(s) and other sources associated
331.07−02.74	331.0−02.7	He 2−157	16183−5333	16 22 14.2	−53 40 54	331.075	−2.750	
331.13−05.76	331.1−05.7	PC 11	16336−5536	16 37 42.8	−55 42 26	331.135	−5.766	
331.31−12.16	331.3−12.1	Hen 3−1357	17119−5926	17 16 21.0	−59 29 23	331.310	−12.164	
331.32+16.82	331.3+16.8	NGC 5873	15096−3756	15 12 50.9	−38 07 32	331.326	16.828	
331.40−03.58	331.4−03.5	He 2−162	16238−5354	16 27 50.9	−54 01 29	331.408	−3.582	
331.44+00.56	331.4+00.5	He 2−145	16051−5053	16 08 58.8	−51 01 57	331.448	0.562	
331.52−03.89	331.5−03.9	He 2−165	16260−5402	16 29 58.3	−54 09 31	331.526	−3.900	
331.54−02.78	331.5−02.7	He 2−161	16206−5315	16 24 37.7	−53 22 36	331.542	−2.789	
331.72−01.01	331.7−01.0	Mz 3	16133−5151	16 17 13.3	−51 59 12	331.727	−1.012	
332.07−03.36	332.0−03.3	He 2−164	16259−5316	16 29 53.2	−53 23 15	332.079	−3.361	
332.25+03.55	332.2+03.5	Wray 16−199	15567−4807	16 00 22.0	−48 15 36	332.252	3.560	[2]
332.30−04.26	332.3−04.2	He 2−170	16313−5344	16 35 21.2	−53 50 11	332.302	−4.261	
332.79−16.46	332.8−16.4	HaTr 6		17 51 53.0	−60 23 21	332.796	−16.466	[8]
332.91−09.90	332.9−09.9	He 3−1333		17 09 01.0	−56 54 48	332.915	−9.909	
333.42+01.18	333.4+01.1	He 2−152	16116−4905	16 15 20.2	−49 13 22	333.429	1.186	
333.48−04.05	333.4−04.0	HeTr 3		16 39 37.5	−52 49 12	333.487	−4.057	
334.35−01.47	334.3−01.4	MeWe 1−6		16 31 06.8	−50 26 31	334.354	−1.478	
334.39−09.34	334.3−09.3	IC 4642	17075−5520	17 11 45.3	−55 24 01	334.392	−9.346	
334.84−07.46	334.8−07.4	SaSt 2−12	16590−5351	17 03 02.9	−53 55 54	334.843	−7.464	
335.25−03.62	335.2−03.6	HaTr 4		16 45 00.3	−51 12 19	335.252	−3.620	
335.47+09.26	335.4+09.2	ESO 330−02		15 53 12.6	−41 50 28	335.471	9.267	
335.49−01.10	335.4−01.1	He 2−169	16304−4914	16 34 12.8	−49 21 16	335.491	−1.103	
335.58+12.44	335.5+12.4	DS 2		15 43 05.0	−39 18 16	335.584	12.447	
335.66−04.02	335.6−04.0	MeWe 1−8	16448−5104	16 48 40.1	−51 09 19	335.662	−4.026	
335.92−03.65	335.9−03.6	MeWe 1−7	16441−5037	16 47 56.9	−50 42 48	335.929	−3.656	
336.18+04.12	336.1+04.1	GLMP 456	16114−4504	16 15 02.9	−45 11 54	336.182	4.126	
336.22+01.97	336.2+01.9	Pe 1−6	16202−4635	16 23 54.5	−46 42 15	336.220	1.973	
336.28−06.99	336.2−06.9	PC 14		17 06 14.8	−52 30 00	336.288	−6.992	
336.30−05.69	336.3−05.6	He 2−186	16556−5137	16 59 36.1	−51 42 06	336.308	−5.696	
336.64−00.69	336.6−00.6		16333−4807	16 37 06.6	−48 13 43	336.644	−0.696	
336.82−07.23	336.8−07.2	K 2−17	17056−5209	17 09 35.9	−52 13 02	336.823	−7.238	
336.94+08.37	336.9+08.3	StWr 4−10	15587−4125	16 02 13.1	−41 33 37	336.944	8.379	
336.98−11.58	336.9−11.5	MeWe 1−10		17 34 28.4	−54 28 57	336.981	−11.581	
337.47+01.61	337.4+01.6	Pe 1−7	16268−4556	16 30 25.8	−46 02 51	337.474	1.619	
337.49−09.18	337.4−09.1	Wray 16−266	17186−5243	17 22 37.1	−52 46 36	337.497	−9.185	[1]
337.55−05.14	337.5−05.1	He 2−187	16577−5018	17 01 37.1	−50 22 57	337.552	−5.141	LS 3888
337.61−04.24	337.6−04.2	MeWe 1−9		16 57 29.1	−49 46 54	337.618	−4.248	
338.19−08.38	338.1−08.3	NGC 6326	17168−5142	17 20 46.5	−51 45 15	338.200	−8.384	
338.80+05.68	338.8+05.6	He 2−155	16158−4208	16 19 23.1	−42 15 37	338.804	5.681	
340.39−03.28	340.3−03.2	GLMP 507	16594−4656	17 03 09.9	−47 00 28	340.392	−3.289	SS 293
340.48−14.19	340.4−14.1	Sa 1−6		18 00 59.4	−52 44 21	340.482	−14.197	
340.86+10.81	340.8+10.8	Lo 12		16 08 26.2	−37 08 48	340.868	10.820	
340.89+12.34	340.8+12.3	Lo 11	16000−3552	16 03 22.1	−36 00 54	340.895	12.341	
340.90−04.66	340.9−04.6	Sa 1−5	17077−4721	17 11 27.5	−47 25 02	340.907	−4.662	
341.02+09.49	341.0+09.4	SB 25		16 13 38.3	−38 00 01	341.024	9.491	
341.22−24.60	341.2−24.6	Lo 18		19 09 47.9	−55 35 09	341.222	−24.609	ESO 184−18
341.50−09.18	341.5−09.1	He 2−248		17 36 07.0	−49 25 45	341.509	−9.180	
341.60+13.70	341.6+13.7	NGC 6026	15581−3424	16 01 21.1	−34 32 37	341.605	13.704	
341.70−06.08	341.7−06.0	SB 26		17 21 02.9	−47 35 28	341.700	−6.087	
341.84+05.43	341.8+05.4	NGC 6153	16280−4008	16 31 30.6	−40 15 13	341.845	5.438	
341.96+08.86	341.9+08.8	SB 27		16 19 14.0	−37 47 28	341.968	8.863	
342.13+27.53	342.1+27.5	NGC 6072	15193−2326	15 22 19.4	−23 37 32	342.139	27.531	
342.18+10.85	342.1+10.8	Me 2−1	16097−3606	16 12 58.2	−36 13 48	342.181	10.852	
342.22−00.38	342.2−00.3	GLMP 495	16529−4341	16 56 34.2	−43 46 15	342.227	−0.381	
342.32−06.03	342.3−06.0	SB 28		17 22 52.5	−47 02 47	342.328	−6.038	
342.51−14.31	342.5−14.3	Sp 3	18033−5101	18 07 15.8	−51 01 09	342.515	−14.313	
342.74+00.75	342.7+00.7	H 1−3		16 53 31.4	−42 39 23	342.744	0.751	
342.89−06.67	342.8−06.6	Cn 1−4	17240−4653	17 27 50.0	−46 55 41	342.898	−6.677	
342.95−02.04	342.9−02.0	Pe 1−8	17027−4409	17 06 22.7	−44 13 10	342.955	−2.049	
342.96−04.90	342.9−04.9	He 2−207	17158−4550	17 19 32.4	−45 53 12	342.965	−4.909	
343.09−01.77	343.0−01.7	Vd 1−9	17020−4352	17 05 39.0	−43 56 21	343.100	−1.776	
343.30−00.66	343.3−00.6	HaTr 5		17 01 29.3	−43 05 52	343.308	−0.665	
343.42+11.94	343.4+11.9	H 1−1		16 13 28.1	−34 35 40	343.423	11.949	
343.56−07.84	343.5−07.8	PC 17	17319−4657	17 35 41.7	−46 59 48	343.566	−7.845	
343.63+03.73	343.6+03.7	SuWt 3		16 44 24.1	−40 03 21	343.639	3.733	
343.79−09.65	343.7−09.6	SB 29	17417−4742	17 45 33.5	−47 43 51	343.797	−9.655	
343.98−05.80	343.9−05.8	SB 30		17 27 02.2	−45 32 38	343.986	−5.802	
343.99+00.83	343.9+00.8	H 1−5	16538−4133	16 57 23.9	−41 37 59	343.992	0.835	
344.24−01.21	344.2−01.2	H 1−6		17 06 59.0	−42 41 08	344.247	−1.214	
344.27+04.75	344.2+04.7	Vd 1−1	16391−3848	16 42 33.4	−38 54 32	344.277	4.752	
344.41−06.15	344.4−06.1	Wray 16−278		17 30 03.9	−45 22 50	344.415	−6.157	
344.81+03.43	344.8+03.4	Vd 1−3		16 49 32.8	−39 21 10	344.817	3.432	
344.89+02.24	344.4+02.8	Vd 1−5		16 54 33.6	−40 02 56	344.891	2.245	
344.97−01.90	344.9−01.9	PM 1−131	17088−4227	17 12 21.7	−42 30 33	344.978	−1.905	
345.03+04.32	345.0+04.3	Vd 1−2	16433−3831	16 46 45.1	−38 36 58	345.033	4.322	
345.03−04.93	345.0−04.9	Cn 1−3	17225−4408	17 26 12.3	−44 11 26	345.037	−4.931	
345.09+03.43	345.0+03.4	Vd 1−4	16469−3903	16 50 25.3	−39 08 20	345.091	3.438	
345.23−08.83	345.2−08.8	Tc 1	17418−4604	17 45 35.4	−46 05 23	345.238	−8.835	
345.27−01.24	345.2−01.2	H 1−7	17069−4149	17 10 27.4	−41 52 50	345.277	−1.249	
345.32−10.21	345.3−10.2	MeWe 1−11		17 52 47.0	−46 41 58	345.322	−10.215	
345.47+00.14	345.4+00.1	IC 4637		17 05 10.5	−40 53 09	345.479	0.140	
345.50+15.11	345.5+15.1	Lo 13		16 09 45.8	−30 55 07	345.506	15.114	ESO 451−13
345.64+06.74	345.6+06.7	He 2−175	16361−3628	16 39 28.0	−36 34 16	345.644	6.749	
345.89+03.08	345.9+03.0	Vd 1−6	16510−3839	16 54 27.2	−38 44 12	345.900	3.086	
345.93−11.21	345.9−11.2	ESO 279−14		17 59 36.3	−46 38 50	345.935	−11.219	
346.02+08.55	346.0+08.5	He 2−171	16307−3459	16 34 04.2	−35 05 26	346.027	8.551	
346.26−08.21	346.2−08.2	IC 4663	17417−4453	17 45 28.6	−44 54 18	346.262	−8.220	

TABLE 1: continued

GPN	PN G (this work)	usual name (Acker et al.1992a, 1996)	IRAS	$\alpha$ (J2000.0)	$\delta$ (J2000.0)	$\ell$	$b$	remark(s) and other sources associated
346.33−06.89	346.3−06.8	Fg 2	17356−4408	17 39 19.9	−44 09 37	346.337	−6.897	
346.97+12.46	346.9+12.4	K 1−3		16 23 18.5	−31 44 58	346.977	12.466	
347.48+05.81	347.4+05.8	H 1−2	16456−3542	16 48 54.0	−35 47 09	347.487	5.811	
347.79+02.05	347.7+02.0	Vd 1−8	17011−3749	17 04 33.7	−37 53 16	347.794	2.050	
347.91−06.08	347.9−06.0	SB 31	17364−4222	17 40 03.4	−42 24 08	347.914	−6.090	
348.02−13.85	348.0−13.8	IC 4699	18148−4600	18 18 32.0	−45 59 02	348.030	−13.853	
348.07+06.31	348.0+06.3	MGP 1		16 48 48.5	−35 00 58	348.071	6.316	
348.40−04.18	348.4−04.1	H 1−21	17292−4056	17 32 47.8	−40 58 28	348.402	−4.182	
348.88−09.03	348.8−09.0	He 2−306	17529−4302	17 56 33.8	−43 03 19	348.885	−9.037	
348.93+04.61	348.9+04.6	KeWe 5		16 57 56.8	−35 24 53	348.938	4.614	[12], [16], KW 13, KW 5
349.29−03.50	349.2−03.5	H 2−14	17288−3949	17 32 20.1	−39 51 23	349.295	−3.501	
349.35−01.11	349.3−01.1	NGC 6337	17188−3826	17 22 15.6	−38 29 03	349.351	−1.115	
349.36−04.22	349.3−04.2	Lo 16	17322−4009	17 35 41.5	−40 11 28	349.361	−4.223	ESO 333−15
349.50+01.05	349.5+01.0	NGC 6302	17103−3702	17 13 44.2	−37 06 14	349.508	1.056	
349.71−09.19	349.7−09.1	SB 32		17 59 26.8	−42 24 55	349.711	−9.195	
349.80+04.46	349.8+04.4	M 2−4	16578−3445	17 01 06.2	−34 49 38	349.801	4.466	
350.14−03.91	350.1−03.9	H 1−26	17330−3920	17 36 29.8	−39 21 57	350.143	−3.912	
350.59−05.08	350.5−05.0	H 1−28	17394−3935	17 42 54.1	−39 36 24	350.592	−5.088	
350.89−02.47	350.8−02.4	H 1−22	17289−3755	17 32 22.0	−37 57 25	350.894	−2.472	
350.90+04.40	350.9+04.4	H 2−1	17013−3355	17 04 36.2	−33 59 18	350.909	4.402	
351.09−10.47	351.0−10.4	HaTr 9		18 08 58.8	−41 48 38	351.092	−10.475	
351.19+04.83	351.1+04.8	M 1−19	17005−3325	17 03 46.8	−33 29 44	351.199	4.836	
351.27+05.27	351.2+05.2	M 2−5	16590−3305	17 02 19.0	−33 10 05	351.275	5.278	
351.28−06.37	351.2−06.3	SB 33		17 50 27.5	−39 40 17	351.284	−6.371	
351.32+07.64	351.3+07.6	H 1−4		16 53 37.0	−31 40 33	351.321	7.643	
351.56−06.58	351.5−06.5	SB 34	17486−3931	17 52 09.4	−39 32 15	351.566	−6.587	
351.64−06.22	351.6−06.2	H 1−37	17472−3916	17 50 44.5	−39 17 26	351.643	−6.227	
351.70−10.98	351.7−10.9	Wray 16−385		18 12 52.9	−41 30 27	351.703	−10.987	
351.77−06.66	351.7−06.6	SB 35		17 53 02.8	−39 24 09	351.770	−6.668	
351.92+09.04	351.9+09.0	PC 13	16471−3014	16 50 17.0	−30 19 55	351.929	9.041	
351.99−01.91	351.9−01.9	Wray 16−286	17296−3641	17 33 00.6	−36 43 53	351.992	−1.912	
352.06−04.69	352.0−04.6	H 1−30	17416−3807	17 45 06.8	−38 08 50	352.068	−4.699	
352.09−06.77	352.0−06.7	SB 36		17 54 20.8	−39 10 38	352.093	−6.775	
352.18+05.12	352.1+05.1	M 2−8	17022−3228	17 05 30.7	−32 32 09	352.188	5.125	
352.62+03.04	352.6+03.0	H 1−12		17 14 42.9	−33 24 48	352.622	3.050	
352.64−04.98	352.6−04.9	SB 37	17444−3747	17 47 52.6	−37 48 03	352.647	−4.988	
352.67+00.14	352.6+00.1	H 1−8	17230−3459	17 26 24.4	−35 01 41	352.675	0.144	
352.79−08.40	352.7−08.4	SB 38		18 03 28.9	−39 21 27	352.799	−8.408	
352.82−00.25	352.8−00.2	H 1−13	17251−3505	17 28 27.5	−35 07 31	352.828	−0.259	
352.94+11.39	352.9+11.4	K 2−16	16416−2758	16 44 49.1	−28 04 05	352.947	11.396	
352.95−07.59	352.9−07.5	Fg 3	17567−3849	18 00 11.8	−38 49 53	352.957	−7.597	
353.28−05.27	353.2−05.2	H 1−38		17 50 45.4	−37 23 53	353.287	−5.274	
353.35+06.31	353.3+06.3	M 2−6		17 04 18.2	−30 53 28	353.354	6.318	
353.39−08.31	353.3−08.3	SB 39		18 04 31.6	−38 47 40	353.398	−8.320	
353.47−02.46	353.4−02.4	K 5−8		17 39 17.1	−35 46 60	353.473	−2.468	
353.49−04.51	353.4−04.5	K 6−13		17 48 01.0	−36 50 09	353.493	−4.518	
353.51−04.92	353.5−04.9	H 1−36	17463−3700	17 49 48.1	−37 01 28	353.513	−4.921	[11]
353.52−05.00	353.5−05.0	JaFu 2	17468−3702	17 50 10.9	−37 03 26	353.524	−5.003	
353.65−03.61	353.6−03.6	K 6−11		17 44 35.4	−36 14 03	353.654	−3.618	
353.75+06.37	353.7+06.3	M 2−7	17020−3028	17 05 13.8	−30 32 18	353.758	6.370	
353.78−12.89	353.7−12.8	Wary 16−411	18232−4031	18 26 41.6	−40 29 53	353.788	−12.897	
353.88−01.27	353.8−01.2	K 6−3		17 35 27.3	−34 47 42	353.889	−1.279	
353.97+02.70	353.9+02.7	GLMP 546	17164−3226	17 19 45.9	−32 30 28	353.975	2.707	
354.24+04.36	354.2+04.3	M 2−10	17108−3116	17 14 06.9	−31 19 42	354.247	4.366	
354.46−07.84	354.4−07.8	H 1−52		18 04 57.5	−37 38 09	354.469	−7.845	
354.55−01.69	354.5−01.7	K 6−5	17332−3433	17 38 54.2	−34 27 38	354.552	−1.698	
354.56+03.35	354.5+03.3	Th 3−4	17156−3135	17 18 51.8	−31 39 06	354.569	3.353	
354.63+04.96	354.6+04.9	Terz N 139		17 12 54.1	−30 40 11	354.632	4.961	
354.71−07.25	354.7−07.2	SB 40		18 02 55.6	−37 08 14	354.716	−7.252	
354.71−10.09	354.7−10.0	SB 41		18 15 39.9	−38 27 50	354.713	−10.096	
354.98+03.52	354.9+03.5	Th 3−6	17161−3109	17 19 20.1	−31 12 40	354.988	3.522	
355.04−03.70	355.0−03.7	K 5−18		17 48 29.9	−35 05 31	355.045	−3.707	
355.10−06.95	355.1−06.9	M 3−21	17591−3639	18 02 32.2	−36 39 12	355.106	−6.951	
355.16+04.77	355.1+04.7	Terz N 140		17 15 03.0	−30 20 36	355.169	4.774	
355.18+02.33	355.1+02.3	Th 3−11	17212−3140	17 24 26.3	−31 43 23	355.183	2.336	
355.18−02.91	355.1−02.9	H 1−31	17422−3432	17 45 32.3	−34 33 56	355.182	−2.915	
355.21+03.75	355.2+03.7	Terz N 137		17 19 02.8	−30 53 51	355.211	3.752	
355.27−02.54	355.2−02.5	H 1−29	17409−3416	17 44 13.8	−34 17 33	355.275	−2.543	
355.33−07.58	355.3−07.5	SB 42		18 05 52.3	−36 45 38	355.333	−7.589	
355.40−01.42	355.4−01.4	K 6−9	17367−3334	17 40 00.2	−33 35 28	355.410	−1.428	
355.44−02.46	355.4−02.4	M 3−14	17410−3405	17 44 20.6	−34 06 41	355.442	−2.468	
355.46+02.36	355.4+02.3	Terz N 138	17218−3126	17 25 03.5	−31 28 42	355.460	2.364	
355.47−04.09	355.4−04.0	Hf 2−1	17478−3454	17 51 12.2	−34 55 24	355.473	−4.098	
355.67−02.75	355.6−02.7	H 1−32	17427−3402	17 46 06.3	−34 03 46	355.673	−2.754	
355.71−03.41	355.7−03.4	H 2−23		17 48 58.0	−34 21 53	355.720	−3.417	
355.73−03.47	355.7−03.5	H 1−35	17459−3421	17 49 13.9	−34 22 53	355.733	−3.473	
355.79−03.09	355.7−03.0	H 1−33		17 47 49.4	−34 08 05	355.796	−3.096	
355.84−08.80	355.8−08.7	SB 43		18 12 24.5	−36 52 54	355.843	−8.802	
355.90−04.26	355.9−04.2	M 1−30	17496−3437	17 52 58.9	−34 38 24	355.904	−4.269	
355.92+02.77	355.9+02.7	Th 3−10	17214−3049	17 24 40.7	−30 52 00	355.921	2.774	
355.96+03.62	355.9+03.6	H 1−9	17183−3017	17 21 31.9	−30 20 48	355.969	3.626	
356.00−07.45	356.0−07.4	SB 45		18 06 52.4	−36 06 41	356.006	−7.459	
356.08−07.47	356.0−07.4	SB 44		18 07 07.5	−36 02 47	356.088	−7.473	
356.11−03.39	356.1−03.3	H 2−26		17 49 50.8	−34 00 31	356.119	−3.391	
356.15+02.76	356.1+02.7	Th 3−13	17221−3038	17 25 19.3	−30 40 41	356.155	2.765	
356.18−08.68	356.1−08.6	SB 46		18 12 39.8	−36 31 50	356.182	−8.686	
356.29−04.41	356.2−04.4	Cn 2−1	17512−3421	17 54 33.0	−34 22 21	356.298	−4.414	

TABLE 1: continued

GPN	PN G (this work)	usual name (Acker et al.1992a, 1996)	IRAS	$\alpha$ (J2000.0)	$\delta$ (J2000.0)	$\ell$	$b$	remark(s) and other sources associated
356.36−06.25	356.3−06.2	M 3−49		18 02 32.0	−35 13 14	356.368	−6.258	
356.36−07.37	356.3−07.3	SB 47		18 07 21.0	−35 45 42	356.363	−7.378	
356.41−06.86	356.4−06.8	SB 48		18 05 14.3	−35 28 08	356.416	−6.861	
356.48−02.55	356.4−02.5	K 6−12		17 47 17.7	−33 15 39	356.489	−2.551	
356.51−03.63	356.5−03.6	H 2−27	17485−3346	17 51 50.6	−33 47 36	356.516	−3.638	
356.53−02.39	356.5−02.3	M 1−27	17434−3307	17 46 45.5	−33 08 35	356.531	−2.394	
356.54+01.56	356.5+01.5	Th 3−55	17277−3058	17 30 58.8	−31 01 05	356.546	1.566	
356.55−03.97	356.5−03.9	H 1−39	17500−3355	17 53 21.0	−33 55 58	356.554	−3.978	
356.56+05.14	356.5+05.1	Th 3−3		17 17 20.5	−28 59 27	356.566	5.147	
356.62−07.80	356.6−07.8	H 1−57		18 09 49.0	−35 44 15	356.622	−7.808	
356.76−04.80	356.7−04.8	H 1−41	17539−3409	17 57 19.1	−34 09 49	356.766	−4.806	
356.78−06.48	356.7−06.4	H 1−51		18 04 29.3	−34 57 59	356.786	−6.486	
356.81−03.05	356.8−03.0	K 5−20	17468−3313	17 50 10.8	−33 14 19	356.818	−3.057	
356.81−05.48	356.8−05.4	H 2−35		18 00 18.1	−34 27 40	356.811	−5.488	
356.88−11.73	356.8−11.7	Lo 17		18 27 50.8	−37 15 56	356.883	−11.731	
356.89+03.32	356.8+03.3	Th 3−12	17219−2942	17 25 06.0	−29 45 16	356.895	3.321	
356.95+04.55	356.9+04.5	M 2−11	17173−2857	17 20 33.2	−29 00 39	356.952	4.559	
356.98+04.44	356.9+04.4	M 3−38	17178−2900	17 21 04.5	−29 03 00	356.984	4.443	
356.98−05.80	356.9−05.8	M 2−24	17587−3427	18 02 02.9	−34 27 47	356.986	−5.804	
357.03+02.43	357.0+02.4	M 4−4	17255−3005	17 28 50.5	−30 07 44	357.035	2.440	
357.12+03.61	357.1+03.6	M 3−7		17 24 34.5	−29 24 19	357.121	3.611	
357.13+01.21	357.1+01.2	K 6−2	17307−3040	17 33 50.9	−30 42 36	357.140	1.218	
357.14+01.98	357.1+01.9	Th 3−24		17 30 51.5	−30 17 13	357.143	1.989	
357.16+04.41	357.1+04.4	TaJu 18		17 21 37.9	−28 55 16	357.160	4.415	FEST 1−429
357.17−06.17	357.1−06.1	M 3−50		18 04 05.1	−34 28 38	357.178	−6.178	
357.18−04.78	357.1−04.7	H 1−43	17549−3347	17 58 14.5	−33 47 38	357.184	−4.789	
357.22+07.41	357.2+07.4	M 4−3	17075−2705	17 10 41.8	−27 08 44	357.228	7.410	
357.24−09.84	357.2−09.8	SB 49		18 20 09.2	−36 07 23	357.243	−9.845	
357.26+02.00	357.2+02.0	H 2−13		17 31 08.0	−30 10 27	357.270	2.001	
357.27−04.54	357.2−04.5	H 1−42	17541−3335	17 57 25.2	−33 35 43	357.272	−4.542	
357.29+01.46	357.2+01.4	Al 2−H		17 33 16.8	−30 26 31	357.298	1.467	
357.31−06.58	357.3−06.5	SB 50		18 06 07.9	−34 33 28	357.310	−6.586	
357.32+03.37	357.3+03.3	M 3−41	17228−2919	17 25 59.8	−29 21 50	357.329	3.378	
357.32+04.05	357.3+04.0	H 2−7	17202−2856	17 23 24.9	−28 59 06	357.328	4.057	
357.40−03.54	357.4−03.5	M 2−18	17503−3258	17 53 37.9	−32 58 47	357.409	−3.549	
357.40−07.26	357.4−07.2	SB 51		18 09 16.4	−34 47 43	357.408	−7.268	
357.48−03.24	357.4−03.2	M 2−16	17492−3245	17 52 34.4	−32 45 51	357.483	−3.248	
357.49−04.68	357.4−04.6	M 2−22	17552−3328	17 58 32.6	−33 28 36	357.491	−4.687	
357.50+03.12	357.5+03.1	Th 3−16		17 27 24.3	−29 21 14	357.508	3.128	
357.53+03.25	357.5+03.2	M 3−42	17238−2913	17 26 59.8	−29 15 31	357.538	3.255	
357.60+01.79	357.6+01.7	H 1−23	17296−2958	17 32 46.9	−30 00 14	357.607	1.795	
357.62+02.60	357.6+02.6	H 1−18	17265−2930	17 29 42.7	−29 32 50	357.625	2.603	
357.63−03.33	357.6−03.3	H 2−29	17499−3240	17 53 16.7	−32 40 39	357.633	−3.332	
357.65+01.07	357.6+01.0	TrBr 4		17 35 43.1	−30 21 25	357.655	1.071	
357.94−05.11	357.9−05.1	M 1−34	17580−3317	18 01 22.2	−33 17 43	357.941	−5.111	
357.98+09.32	358.0+09.3	Th 3−1		17 05 44.6	−25 25 01	357.984	9.323	
357.98−03.84	357.9−03.8	H 2−30	17529−3236	17 56 13.5	−32 37 32	357.990	−3.842	
358.00−05.15	358.0−05.1	Pe 1−11	17584−3315	18 01 42.7	−33 15 25	358.010	−5.155	Min 1−87
358.01−02.73	358.3−02.5	Al 2−P		17 51 45.2	−32 03 03	358.010	−2.737	[12], PK 358−2 4
358.02+02.69	358.0+02.6	Th 3−23	17271−2907	17 30 22.0	−29 10 03	358.021	2.692	
358.06+07.49	358.0+07.5	TaJu 8		17 12 33.7	−26 25 25	358.064	7.491	
358.22+03.56	358.2+03.5	H 2−10	17243−2828	17 27 32.9	−28 31 07	358.222	3.565	
358.23−01.18	358.2−01.1	B1 D		17 46 02.9	−31 03 37	358.235	−1.185	
358.24+03.63	358.2+03.6	M 3−10	17241−2825	17 27 20.1	−28 27 51	358.241	3.634	
358.24+04.28	358.2+04.2	M 3−8	17217−2803	17 24 52.2	−28 05 55	358.243	4.289	
358.34−07.33	358.3−07.3	SB 52		18 11 40.0	−34 00 25	358.344	−7.333	
358.34−21.60	358.3−21.6	IC 1297	19139−3942	19 17 23.4	−39 36 47	358.346	−21.605	
358.35+03.09	358.3+03.0	H 1−17	17265−2838	17 29 40.6	−28 40 22	358.351	3.090	
358.38+01.20	358.3+01.2	B1 B		17 36 59.8	−29 40 09	358.384	1.208	
358.39−02.50	358.5−02.5	M 4−7	17484−3135	17 51 44.7	−31 36 02	358.397	−2.506	[12], Al 2−0, PK 358−02 3, PK 358−02 4
358.40+01.73	358.4+01.7	JaSt 2		17 35 01.1	−29 22 16	358.403	1.731	
358.41+03.38	358.4+03.3	Th 3−19		17 28 41.8	−28 27 20	358.414	3.390	
358.50−07.33	358.5−07.3	NGC 6563	18087−3352	18 12 02.6	−33 52 06	358.504	−7.338	
358.51+02.97	358.5+02.9	Al 2−F		17 30 30.5	−28 35 54	358.514	2.979	
358.51−01.73	358.5−01.7	JaSt 61		17 48 55.9	−31 06 41	358.510	−1.740	
358.51−04.22	358.5−04.2	H 1−46	17557−3221	17 59 02.5	−32 21 43	358.515	−4.226	
358.53+03.70	358.5+03.7	Al 2−B		17 27 47.1	−28 11 00	358.531	3.707	
358.53+05.47	358.5+05.4	M 3−39	17180−2708	17 21 11.4	−27 11 37	358.536	5.471	
358.58+02.68	358.5+02.6	HDW 8	17286−2839	17 31 47.4	−28 42 03	358.582	2.687	
358.59+01.70	358.6+01.7	JaSt 4		17 35 37.1	−29 13 23	358.598	1.701	
358.64+07.87	358.6+07.8	M 3−36	17095−2540	17 12 39.2	−25 43 37	358.650	7.877	
358.65−05.57	358.6−05.5	M 3−51		18 04 56.5	−32 54 01	358.653	−5.573	
358.68−02.39	358.6−02.4	K 6−16		17 52 00.3	−31 17 50	358.687	−2.399	
358.69+01.86	358.6+01.8	M 4−6	17320−2901	17 35 14.1	−29 03 11	358.696	1.863	
358.69−01.11	358.6−01.1	JaSt 55		17 46 52.3	−30 37 43	358.695	−1.112	
358.70+05.16	358.7+05.1	GLMP 554	17195−2710	17 22 43.6	−27 13 37	358.701	5.170	
358.72−05.28	358.7−05.2	H 1−50	18006−3241	18 03 53.4	−32 41 40	358.726	−5.280	
358.73+05.26	358.7+05.2	M 3−40	17193−2705	17 22 28.3	−27 08 43	358.737	5.263	
358.74−05.17	358.7−05.1	SB 53		18 03 28.7	−32 37 26	358.746	−5.170	
358.75−02.75	358.7−02.7	Al 2−R		17 53 36.2	−31 25 24	358.751	−2.758	
358.83+04.06	358.8+04.0	Th 3−15		17 27 10.7	−27 43 58	358.832	4.068	Al 2−A, PK 358+04 2
358.85+04.13	358.8+04.1	SaWe 2	17238−2738	17 26 59.8	−27 40 27	358.859	4.134	PBOZ 4
358.88+00.05	358.8−00.5	Terz N 2022	17395−2950	17 42 42.6	−29 51 35	358.881	0.056	[12], Terz N 124
358.88+03.05	358.8+03.0	Th 3−26	17280−2812	17 31 09.2	−28 14 50	358.886	3.052	
358.95−00.72	358.9−00.7	M 1−26	17427−3010	17 45 57.6	−30 12 00	358.960	−0.721	
358.96+03.39	358.9+03.4	H 1−19	17268−2756	17 30 02.6	−27 59 17	358.969	3.399	
358.98+03.22	358.9+03.2	H 1−20	17275−2801	17 30 43.8	−28 04 07	358.985	3.228	ESO 455−8

TABLE 1: continued

GPN	PN G (this work)	usual name (Acker et al.1992a, 1996)	IRAS	$\alpha$ (J2000.0)	$\delta$ (J2000.0)	$\ell$	$b$	remark(s) and other sources associated
358.98−03.74	358.9−03.7	H 1−44	17549−3142	17 58 10.7	−31 42 55	358.987	−3.747	
358.99−01.55	358.9−01.5	JaSt 62	17461−3035	17 49 20.0	−30 36 05	358.992	−1.551	
359.00−04.16	359.0−04.1	M 3−48		17 59 56.9	−31 54 28	359.006	−4.169	
359.03+02.82	359.0+02.8	Al 2−G	17291−2812	17 32 23.1	−28 14 26	359.040	2.829	
359.08−04.81	359.0−04.8	M 2−25	17594−3209	18 02 46.5	−32 09 28	359.082	−4.814	
359.09−01.62	359.1−01.6	RPZM 42	17466−3031	17 49 53.1	−30 33 07	359.096	−1.628	
359.10−02.92	359.1−02.9	M 3−46	17518−3111	17 55 06.1	−31 12 14	359.103	−2.923	
359.11−01.71	359.1−01.7	M 1−29		17 50 18.0	−30 34 54	359.116	−1.720	
359.16+15.11	359.1+15.1	A 40	16456−2055	16 48 34.5	−21 00 51	359.166	15.120	
359.17−02.30	359.1−02.3	M 3−16	17495−3048	17 52 46.0	−30 49 34	359.176	−2.301	
359.23+01.21	359.2+01.2	19W32	17358−2854	17 39 02.9	−28 56 36	359.236	1.218	
359.28−33.50	359.2−33.5	CRBB 1		20 19 28.6	−41 31 27	359.280	−33.504	
359.29+04.76	359.2+04.7	Th 3−14	17226−2655	17 25 44.0	−26 57 47	359.296	4.762	
359.35−00.98	359.3−00.9	Hb 5	17447−2958	17 47 56.2	−29 59 40	359.357	−0.980	
359.35−03.10	359.3−03.1	M 3−17	17531−3103	17 56 25.6	−31 04 17	359.360	−3.102	
359.37−06.04	359.3−06.0	SB 54		18 08 31.3	−32 29 55	359.370	−6.042	
359.38−01.81	359.3−01.8	M 3−44	17480−3023	17 51 18.9	−30 23 53	359.386	−1.814	
359.39+01.40	359.3+01.4	Th 3−35		17 38 42.2	−28 42 44	359.392	1.405	
359.39+03.62	359.3+03.6	Al 2−E	17270−2728	17 30 14.4	−27 30 18	359.397	3.628	
359.44−08.58	359.4−08.5	SB 55	18161−3338	18 19 26.5	−33 37 07	359.443	−8.588	
359.48+02.36	359.4+02.3	Th 3−32		17 35 15.7	−28 07 01	359.488	2.363	
359.49−03.46	359.4−03.4	H 2−33	17549−3107	17 58 12.7	−31 08 05	359.496	−3.465	
359.52+02.65	359.5+02.6	Al 2−I	17310−2754	17 34 13.5	−27 55 53	359.520	2.656	
359.66−04.82	359.6−04.8	H 2−36		18 04 07.9	−31 39 16	359.664	−4.820	
359.69+02.23	359.6+02.2	Al 2−K		17 36 14.3	−28 00 42	359.693	2.238	
359.71−02.69	359.7−02.6	H 1−40	17523−3033	17 55 36.0	−30 33 32	359.715	−2.691	
359.73−01.80	359.7−01.8	M 3−45	17489−3004	17 52 06.0	−30 05 14	359.740	−1.801	
359.75−04.46	359.7−04.4	KFL 3		18 02 52.9	−31 23 58	359.758	−4.464	PK 359−04
359.80+03.74	359.8+03.7	Th 3−25	17276−2703	17 30 46.8	−27 05 59	359.803	3.749	
359.83+08.98	359.8+08.9	GLMP 525	17086−2403	17 11 39.0	−24 07 33	359.839	8.987	CD−23 13192
359.86+06.91	359.8+06.9	M 3−37	17161−2514	17 19 13.5	−25 17 16	359.868	6.911	
359.88+02.47	359.8+02.4	Th 3−33	17326−2741	17 35 48.1	−27 43 19	359.885	2.476	
359.89+05.25	359.8+05.2	TeJu 19		17 25 23.7	−26 11 54	359.892	5.250	
359.89+05.62	359.8+05.6	M 2−12	17209−2556	17 24 01.5	−25 59 23	359.894	5.622	
359.89−07.27	359.8−07.2	M 2−32		18 14 50.7	−32 36 55	359.897	−7.273	
359.93+05.18	359.9+05.1	M 3−9	17226−2609	17 25 43.4	−26 11 54	359.933	5.189	
359.93−05.44	359.9−05.4	KFL 9	18040−3143	18 07 19.3	−31 42 57	359.939	−5.444	
359.94−07.41	359.9−07.4	SB 56		18 15 32.6	−32 37 60	359.950	−7.411	
359.95−04.59	359.9−04.5	M 2−27	18006−3117	18 03 52.5	−31 17 46	359.952	−4.598	

- [1] FC in SECGPN rotated by  $180^\circ$
- [2] FC(SECGPN) wrong sky region
- [3] wrong CSPN in FC(SECGPN) - real one  $7''$  E of indicated bright star
- [4] wrong CSPN in FC(SECGPN) - real one  $18''$  NEE of indicated star
- [5] FC(SECGPN) reversed in  $x$
- [6] wrong CSPN in FC(SECGPN) - real one faint star SE fo marked one
- [7] FC(SECGPN) wrong - real PN  $2.4''$  W,  $1''$  N of indicated star
- [8] FC(SECGPN) wrong identifier at chart
- [9] FC(SECGPN) rotated  $90^\circ$  conter-clock
- [10] FC(SECGPN) maked only SE filament of very big nebula
- [11] FC(SECGPN) reversed in  $y$
- [12] detailed remarks in section 5
- [13] FC(Acker et al. 1996) - wrong object indicated on FC - real object  $20''$  SE
- [14] FC(Acker et al. 1996) - wrong CSPN indicated on FC - real CSPN  $10''$  E
- [15] FC(Acker et al. 1996) - wrong scale beside chart
- [16] FC(Acker et al. 1996) reversed in  $x$
- [17] FC(Acker et al. 1996) - dss chart wrong sky region, small stamp reversed in  $x$
- [18] FC(Acker et al. 1996) - dss chart wrong sky region, small stamp reversed in  $y$

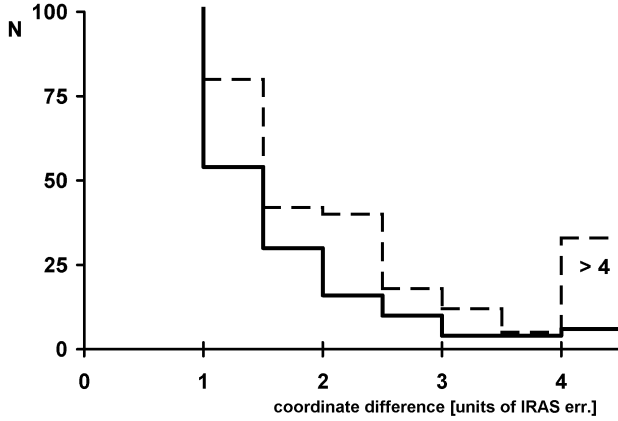


Fig. 2. Frequency histogram of the positional difference between the determination in this work and the positions of the identified IRAS PSC sources (solid line) and those of SECGPN positions to the same IRAS PSC sources after removing the rejected sources (dashed line)

TABLE 2

#### OBJECTS NOT IDENTIFIED ON PLATES OR IMAGES

GPN	PN G	usual name	remark(s)
000.17-01.21	000.1-01.2	JaSt 72	IRAS 17476-2923
000.33-01.64	000.3-01.6	JaSt 83	
001.02+01.35	001.0+01.3	JaSt 39	
001.58+01.51	001.5+01.5	JaSt 43	
021.66+00.81	021.6+00.8	VSP 2-19	IRAS 18250-0940
292.97+01.99	292.7+01.9	Wray 16-93	IRAS 11285-5900
354.43+04.03	354.4+04.0	Te 233	
358.44+01.66	358.4+01.6	JaSt 3	
358.63+00.75	358.6+00.7	JaSt 16	most likely associated with GPSR 358.639+0.757
358.83+01.78	358.8+01.7	JaSt 5	
359.02+01.16	359.0+01.1	JaSt 9	
359.23+01.36	359.2+01.3	JaSt 8	

and morphology of the nebula. In a few cases the coordinates are within the errors, but an other bright object (usually a star) is more likely the correct identification. 27 (4.5 %) objects listed as IRAS PSC counterparts in Acker et al. (1992, 1996) were rejected to be the proper optical counterpart to the IRAS source. Sources without an identification with an IR source were checked with the IRAS-PSC on basis of coordinates and IR colours. This results in 24 new identifications. The identifications assumed to be correct are listed in Tab. 1 and Tab 2. The rejected objects are given in Tab. 3. In Fig. 2 the frequency histogram of the differences of the source position between the IRAS PSC source and the coordinates measured here and that of the object in the SECGPN to the IRAS source is shown.

TABLE 3

#### IRAS SOURCES REJECTED TO BE ASSOCIATED WITH PNE FROM SECGPN OR ACKER ET AL. (1996).

IRAS	remark(s)
17322-2721	clearly too far away
17519-2957	clearly too far away
17548-2944	clearly too far away
18152-3156	clearly too far away
17374-2700	clearly too far away
17371-2641	clearly too far away
18131-3008	bright star beside it - IRAS source also has stellar colours
18001-2659	clearly too far away and IRAS source has stellar colours
18092-2752	about 2 error ellipses away, stellar colours and bright stars at IRAS PSC position
18027-2630	clearly too far away
18150-2550	clearly too far away
18114-2443	clearly too far away
18335-2151	clearly too far away
18265-1908	clearly too far away
07415-3435	clearly too far away and bright star at exact position
12202-6344	clearly too far away
15478-4817	clearly too far away
17023-5226	clearly too far away
17012-3049	clearly too far away and clearly stellar colours
17484-3135	Al2-0 mixed with Al2-P -- see section 5
17253-2824	clearly too far away
17236-2739	mixed with SaWe2 and PBOZ 4 -- see section 5
17471-3034	clearly too far away
17329-2756	clearly too far away
18115-3237	clearly too far away
17191-4700	2.5 error ellipses, stellar [12]-[25] and exact position of the bright star SE of the nebula.
18038-3603	3.1 error ellipses, stellar colours and exact coordinates of star beside

#### 5. INDIVIDUAL OBJECTS

Some individual objects erroneously classified or identified as PNe or being doubtful PNe are separately discussed as follows:

GPN G254.67+00.21 = PN G254.6+00.2 = Ns 238 :

Neither this object has the morphology of a PN, nor are the IRAS colours and the total FIR flux suitable for a PN. Thus it was included in a sample of star forming regions by Chan et al. (1996). Also the NIR photometry with a wide beam (Liseau et al. 1992) is more likely that of a star forming region (Kimeswenger & Weinberger 2001). Rosseau & Perie (1996) list four stars in that region (VdBH 13aA, 13aB, 13b and 13c) as "embedded in a reflection nebula". The survey of OH emission towards post-AGB stars (teLintel Hekkert & Chapman 1996) led to no detection, while the region appears rather bright in CO (Wouterloot & Brand 1989). Goebel et al (1995) select this source as an IRAS LRS possible carbon star having some unusual features around  $11\mu\text{m}$ . The IRAS source is not well associated with the nebula and the brightest star, which is classified as a K giant, is somewhat displaced towards west. Inspecting the images of Schwarz et al. (1992), I found that there is a lot of

H $\alpha$  emission towards the location of the IRAS source and an indication of a bipolar structure, while [OIII] emission is only around the stars cited above towards the edge of the system. Thus the nature of this object has to be questioned.

GPN G261.15+00.24 = PN G260.7+00.9 = Vo3  
= PN G260.1+00.2 :

This object was identified by Volk in a spectroscopic survey of IRAS sources (priv. comm. to Acker) as a planetary nebula. The finding chart in the SECGPN is correct. Also the crossidentification to IRAS 08355-4027 is correct. The nebula is misidentified in Acker et al. (1992a) as one given in Holmberg et al. (1978): there it is identical to BRAN 174 (Brand et al. 1986) and identified as an HII region around the emission line stars ESO-HA 161 and ESO-HA 162 (Pettersson & Reipurth 1994). The real PN is identical to BRAN 163 and was "rediscovered" as PN 0835-4027 by van de Steene & Pottasch (1993) and thus the identifier PN G260.1+00.2 was assigned (Acker et al., 1996).

GPN G272.40-05.96 = PN G272.4-05.9 = MeWe  
1-1 = Bran 199 = ESO 165-6 :

Feitzinger & Galinski (1985) identify this object as elliptical galaxy with many stars superimposed. The ESO Uppsala survey remarks: "possible neb.". The morphology and spectroscopy (SECGPN) indicates clearly the nature as a PN.

GPN G358.01-02.73 = PN G358.3+02.6 and GPN  
G358.39-02.50 = PN G358.5-02.5 :

Those nebula are reversed in the SECGPN. While the finding charts are correctly given as in Allen (1979), the identification was wrong (just the opposite). This leads to some confusion with the previously defined PK identifiers in the data bases.

GPN G358.88+00.05 = PN G358.8-00.0 :

This nebula is attached to the identifier Terz N 2022 in the SECGPN and in SIMBAD (Terzan & Ounnas 1988) In the data base at the same coordinates a nebula named Terz N 124 is given - the origin for this identifier might be the work of Acker et al. (1992b) where it is given as TeGo 124. There are no finding charts available. But as the coordinates are identical to arcseconds, it is assumed that this is the same source. The coordinates of the IRAS source 17395-2950 are

identical too. This source is extremely cold according to the FIR.

GPN G011.39+17.98 = PN G011.4+17.9 = PK  
011+18 1 = PK 011+17 1 :

This object is labeled in the supplement to the SECGPN as DHW 2. There exist two discovery lists of Dengel, Hartl and Weinberger (Dengel et al. 1979, 1980) The more commonly known second one has the identifiers DHW (and sometimes DeHt). Thus we use the identifier DHW 1-2 (similar to recent the recent work by Saurer et al. 1997) for this object to avoid overlap to the second object in the second list. In SIMBAD two independent entries at the same coordinates are given.

KeWe 1 = KW 11 :

The nebula KeWe 1 (Kerber & Claeskens 1997) is identical to that one indicated as KW 11 (Kerber & Weinberger 1995). KW 1, as used in Acker et al (1996), has nothing to do with KW 1 = IRAS 00592+6530 = KLV 9 used in SIMBAD.

KeWe n = KW n n=2,3,4,5 :

The nebulae KeWe 2, 3, 4 and 5 (Kerber et al. 1998) are identical to that one indicated as KW 2, 3, 4 and 5 in SIMBAD and identical to KW 6, 8, 9 and 13 in Kerber & Weinberger (1995).

## 6. CONCLUSION

The considerable improvement of coordinates and elimination of misidentifications presented in this paper are important steps in refining the existing catalogues of galactic planetary nebulae. This gives a powerful tool for automated and semiautomatic crossidentification for forthcoming surveys in other wavelengths and for the observations with space-born equipment or large telescopes of the next generation.

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